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INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

HEARINGS

BEFORE THE

TEMPORARY NATIONAL ECONOMIC COMMITTEE CONGRESS OF THE UNITED STATES

SEVENTY-SIXTH CONGRESS

FIRST SESSION

PURSUANT TO

Public Resolution No. 113 **(Seventy-fifth Congress)**

AUTHORIZING AND DIRECTING A SELECT COMMITTEE TO
MAKE A FULL AND COMPLETE STUDY AND INVESTIGA-
TION WITH RESPECT TO THE CONCENTRATION OF
ECONOMIC POWER IN, AND FINANCIAL CONTROL
OVER, PRODUCTION AND DISTRIBUTION
OF GOODS AND SERVICES

PART 11

CONSTRUCTION INDUSTRY

JUNE 27, 28, AND 29, JULY 6, 7, 11, 12, 13, AND 14, 1939

Printed for the use of the Temporary National Economic Committee



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¹ Resigned from Committee July 1, 1939.

II

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INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TUESDAY, JUNE 27, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Wednesday, June 21, 1939, in the Caucus Room, Senate Office Building, Representative B. Carroll Reece presiding.

Present: Representative Reece (acting chairman), Messrs. O'Connell, Lubin, Arnold, and Brackett.

Present also: Willis J. Ballinger, Federal Trade Commission; Thomas C. Blaisdell, Securities Exchange Commission; Theodore J. Kreps, economic consultant to the Committee; and Peter A. Stone, coordinator of construction studies for the Committee.

Acting Chairman REECE. The committee will please come to order.

The committee is beginning a very important study which deals with construction. Mr. O'Connell, would you care to make a preliminary statement in connection with this before calling the first witness?

Mr. O'CONNELL. Yes; I should like to make a statement before the first witness is called.

STATEMENT OF JOSEPH J. O'CONNELL, JR., UNITED STATES TREASURY, SPECIAL COUNSEL FOR THE TEMPORARY NATIONAL ECONOMIC COMMITTEE IN CONSTRUCTION-INDUSTRY STUDY, WASHINGTON, D. C.

Mr. O'CONNELL. This morning the committee starts a series of hearings involving the construction industry, with particular emphasis being given to the field of the privately financed construction of residential housing.

In previous hearings before the committee, particularly the one involving a study of investment and savings,¹ the necessity for finding outlets for the productive investment of the accumulated savings of individuals was stressed, it having been urged that no substantial recovery can be had unless such savings are, in one way or another, put to work producing what are commonly referred to as "capital goods." Throughout this hearing the role that the construction industry, through an expansion in activity in the housing field, could play in furnishing a large outlet for accumulated savings was adverted to again and again by the various witnesses. By a process of elimination it was made to appear that housing offers one of the most fertile fields for possible utilization of these accumulations of individual

¹ See Hearings, Part IX.

savings through the expansion of private enterprise operated for profit.

With this in mind the committee felt that this would be a peculiarly appropriate time to examine into this very important industry and to ascertain, to the extent possible within the time available, the obstacles which at the present time play a part in preventing expansion in the industry, with a view to determining what steps may be taken which would be calculated to produce the expansion essential in this field. Bearing in mind the almost universal truth of the statement that the solution of a problem is inherent in the correct statement of it, it is our hope that through the testimony of a series of witnesses, all well qualified to speak as to one or more segments of this very complicated industry, the committee will be acquainted with most, if not all, of the major problems affecting it and will be brought to a realization that the problems are many but not insurmountable, and that concerted action on several fronts can aid in bringing about the desired end, that being substantial expansion in the field of construction through the better utilization of our material resources, our labor supply, and our stored up savings awaiting investment in productive privately owned and operated enterprise.

As I have indicated, our general approach to the problem will be to scrutinize the industry with a view to ascertaining what the impediments are to an expansion in the industry, particularly when viewed in the light of the tremendous unsatisfied demand for housing which we hope to demonstrate exists. This necessarily focuses our attention on cost—the cost of materials, the cost of labor, the cost of the other elements that enter into the original capital cost of the house, and the cost of finance and other factors that determine the amount the owner or renter of dwelling accommodations is required to have available at periodic intervals after the accommodations are ready for occupancy. This latter method of measuring costs, the importance of which is too often overlooked or minimized, involves a consideration of annual costs as distinguished from original or capital cost. If it can be demonstrated that such costs are too high, either absolutely or in terms of the market for the commodity being produced, it is obvious that our attention will then center on what may be done to reduce such costs and thereby to satisfy to some extent the present unsatisfied demand for dwelling accommodations.

In general, it may be said that the witnesses will discuss the importance of the industry and its position in the national economy, the present inventory of housing and the need for replenishment of it, the extent to which the need is now being met, the various items of cost that enter into the construction and operation of a house, whether built for investment or for speculation and the various sources of money available for financing the construction of housing, whether equity money or mortgage money. The discussion will then turn to the character of the industry itself, and the great number and variety of persons and functions involved. We will then take up the effect of local real-estate tax rates, of foreclosure costs and other nonlabor and material costs, the scope and deterrent effect of certain labor practices, as well as of the price policies of producers and suppliers of materials, the deterrent effect of the provisions of local building codes and of what are commonly referred to as collusive combinations in restraint of trade. The position of organized labor in the building trades with

respect to the matters under discussion will then be developed through a representative or representatives of labor.

A number of affirmative suggestions for improvements will be elicited from witnesses who feel they can contribute to a solution of our problem, after which witnesses will be called who will discuss with the committee the part that Government has played in the housing field, particularly in more recent years, and will give the committee a clear and concise picture of the existing relationship between public and private housing.

It is then proposed that another member of the committee will summarize the material that will then have been presented to the committee after which the hearing will be brought to a close.

One other thing I think might be pointed out, that in one rather important respect this hearing differs from other hearings presented before the committee. Prior hearings have been under the auspices of one or another of the various executive departments represented on the committee, and have been put on as a result of the collection of material by such departments or agencies. This hearing is a committee hearing as such. The material which is to be presented has been collected by persons working for the committee, and in that respect it differs from the hearings heretofore had.

My connection with this hearing is merely to assist the committee by to some extent taking the lead in eliciting information from the various witnesses who will be called.

Acting Chairman REECE. Who will be your first witness?

Mr. O'CONNELL. The first witness, and I believe the only witness for today, will be Dr. Lubin, who will discuss the general background of the industry on a statistical basis and will help to give us a starting point from which to continue the more detailed information which later will be presented. Dr. Lubin has been previously sworn.

TESTIMONY OF DR. ISADOR LUBIN, COMMISSIONER OF LABOR STATISTICS, DEPARTMENT OF LABOR, WASHINGTON, D. C.

Mr. O'CONNELL. I don't believe it is necessary that Dr. Lubin be qualified, since I believe we all know his qualifications to discuss the things he is going to discuss.

Dr. LUBIN. In discussing the importance of the construction industry to the American economy I have prepared materials which attempt to bring out the importance of the industry in terms of the employment it affords directly to the workers of this Nation, and in terms of the employment it affords indirectly to those industries which produce things that are used in building houses and other types of structures. Having brought that fact out, I shall then proceed to raise the question as to what the needs for housing are in the United States and what effect building programs which would meet our minimum requirements would have upon employment, both directly on the side of construction and indirectly in the mines, factories, forests, and on the railroads of the country.

CONSTRUCTION EMPLOYMENT

Dr. LUBIN. I want to start first, Mr. Chairman, with a picture of employment in the construction industry since 1925. This chart,

entitled "Construction employment," portrays the course of employment in the construction industry for each year, by month.¹ You will note that the peak of employment in the construction industry occurred in 1928. In the month of August 1928, the construction industry of this country employed approximately 2,400,000 workers.

Dr. LUBIN. You will note further that employment in this industry in 1933 fell to the point where only 656,000 people were being employed, which means a drop of approximately 73 percent from the peak period of 1928. I want to emphasize specifically that the peak occurred in the summer of 1928, because of the fact that in most other industries the peak occurred a year later.

From 1933 to 1936, employment in the construction industry has increased rather perceptibly, but has reflected a decrease in 1937 and 1938. In the peak month in 1936 the construction industry employed approximately 1,600,000 workers which is two-thirds of the employment peak in the twenties. The average in the late twenties ran about 1,800,000 a year, the high and low, of course, varying from month to month with the seasons of the year, and I think it is rather important that we point out that fluctuation from one season to another will run as high as 25 to 30 percent.

The employment situation is still at a point substantially below the average maintained in the middle twenties. In the peak year 1936 only 54 percent of the decrease in employment reflected from 1928 to 1933 had been regained. However, taking the peak month of 1938 as a measure of the recovery, only 37 percent of the decrease has been regained.

Mr. O'CONNELL. Dr. Lubin, would you care to explain the source of material that is exhibited on the chart, for the record?

Dr. LUBIN. The figures are figures of the Bureau of Labor Statistics for 1930-38 and the W. P. A. for 1925-29.

Mr. O'CONNELL. Do you wish to offer the chart?

Dr. LUBIN. Yes, sir.

Acting Chairman REECE. It will be admitted.

(The chart referred to was marked "Exhibit No. 828" and appears on p. 4938. The statistical data on which this chart is based are included in the appendix on p. 5461.)

Dr. LUBIN. The effect of these fluctuations in employment upon the economy and particularly on those industries that depend upon construction for their existence, is evidenced by the charts that will be presented at this point for insertion into the record. The first chart, which is called "Manufacturing employment—Durable and non-durable goods group," portrays very vividly the fact that the durable-goods group of industries reached an employment peak in 1937 which was equal to that of the peak of 1929. The materials that go into the construction of buildings are, of course, durable materials. In other words, all of the industries that depend upon construction for their existence are included among the durable-goods group of industries.

Mr. O'CONNELL. Are they also included in the first chart entitled "Construction employment"?

Dr. LUBIN. No. "Exhibit No. 828" is construction employment, namely people employed on the site of the construction. The 1,800,000 people were engaged in actual construction work as distinguished from these other people who are included in the other

¹ See "Exhibit No. 828", *infra*, p. 4938.

charts as employed in the manufacture of the materials that go into the building industry.

Mr. O'CONNELL. I notice that the recovery in the durable-goods field in 1937 is much more substantial than in the construction employment.

Dr. LUBIN. Well, you note further that the peak of employment in the durable-goods industries came in the fall of 1929, which was the year after the peak of employment that occurred in the construction industry.

(The chart referred to was marked "Exhibit No. 829" and appears on p. 4938. The statistical data on which this chart is based are included in the appendix on p. 5461.)

Dr. LUBIN. Now the significant thing about this chart showing employment in the durable-goods manufacturing industries is the fact that these industries, durable-goods industries, reached their peak in 1937 and that peak was equal to the peak of 1929. But you will note in this chart, also, which depicts employment in the steam and hot-water heating apparatus and steamfittings industry, an industry that depends entirely upon the construction industry for its existence, that employment never got above 90 percent of where it had been in the predepression period.¹

Dr. LUBIN. Or, if you look at the lumber-sawmill industry, an industry which, again, is dependent for the most part on construction for its existence, you will find that employment never got beyond 70 percent of where it had been in the predepression period.²

Mr. O'CONNELL. The charts to which you have just referred—do you intend offering those for the record?

Dr. LUBIN. I should like to when I finish the discussion. Or we might go a step further. Lumber-millwork; employment in that industry in 1937 reached a level about 65 percent of where it had been in the predepression period.³ Or if you look at structural and ornamental metalwork, employment reached about 95 percent of its predepression level.⁴ In brick, tile, and terra cotta the picture was quite similar; employment in 1937 getting to a point about 70 percent of where it had been in the predepression level.⁵ Cement reached about 75 percent of its previous employment levels.⁶ Plumbers' supplies reaching about 87 percent of its predepression level. This chart starts in 1931, but the average for the predepression level is this 100 line which covers the years from '23 to '25.⁷

Mr. O'CONNELL. Well, then, Doctor, as I understand it, the charts to which you have just referred, which involve commodities used almost exclusively in the construction industry, follow the general pattern of the first chart that you showed?

Dr. LUBIN. Very definitely, and I think the significant thing to bring out—I would like to bring out at this point—is the fact that despite the fact that the durable goods industries as a whole during 1935, '36, '37, showed very marked increases, in fact so great an increase in '37 that they equaled the levels of 1929, this group of industries that are a part of that larger group never got back to the '29 levels. In fact, never got back to the levels of 1923-25, which in effect means that we have had a lack of balance in the economy

¹ "Exhibit No. 830", p. 4939.

² "Exhibit No. 831", p. 4939.

³ "Exhibit No. 832", p. 4940.

⁴ "Exhibit No. 833", p. 4940.

⁵ "Exhibit No. 834", p. 4941.

⁶ "Exhibit No. 835", p. 4941.

⁷ "Exhibit No. 836", p. 4942.

EXHIBIT No. 828

CONSTRUCTION EMPLOYMENT

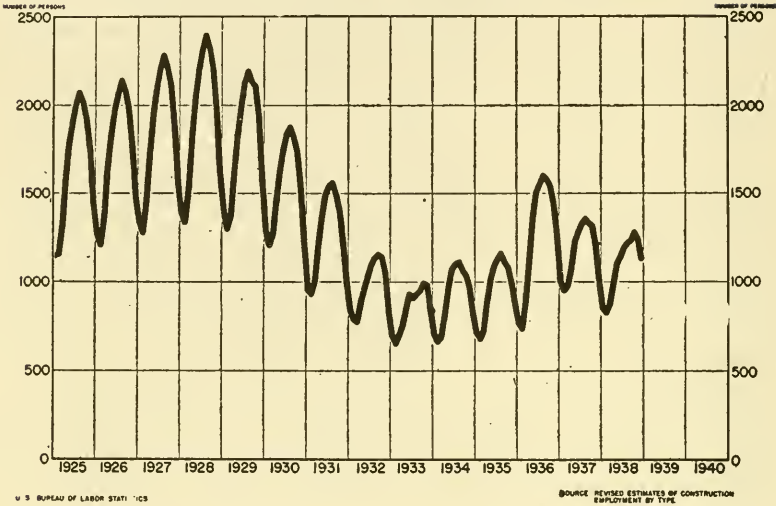


EXHIBIT No. 829

MANUFACTURING EMPLOYMENT
DURABLE & NONDURABLE GOODS GROUP
1923 ~ 25 = 100

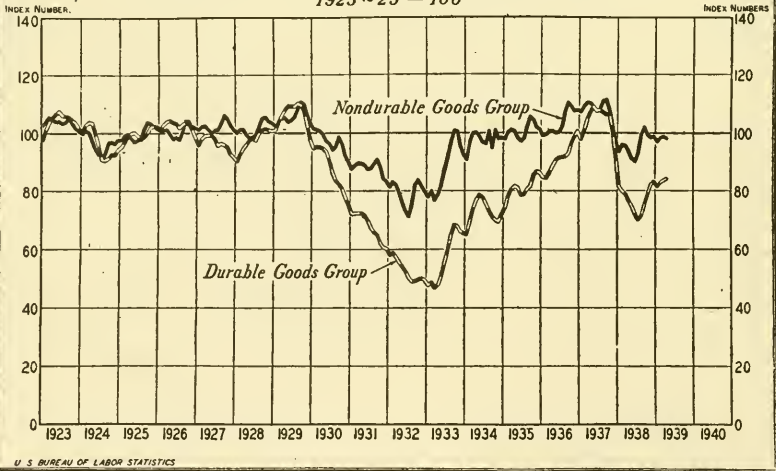


EXHIBIT No. 830

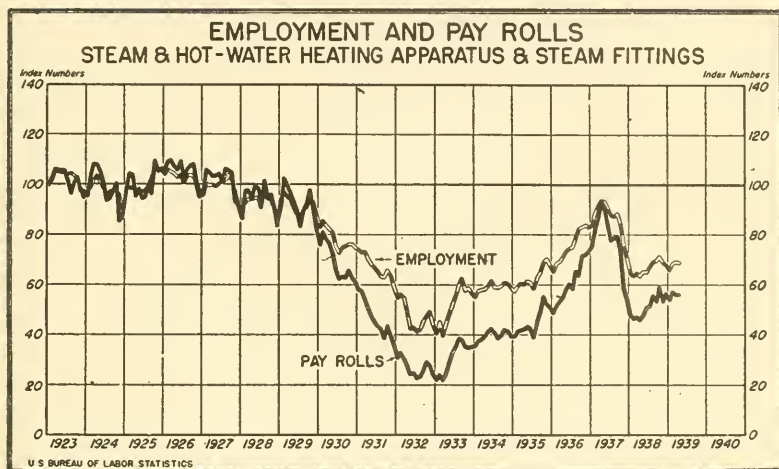


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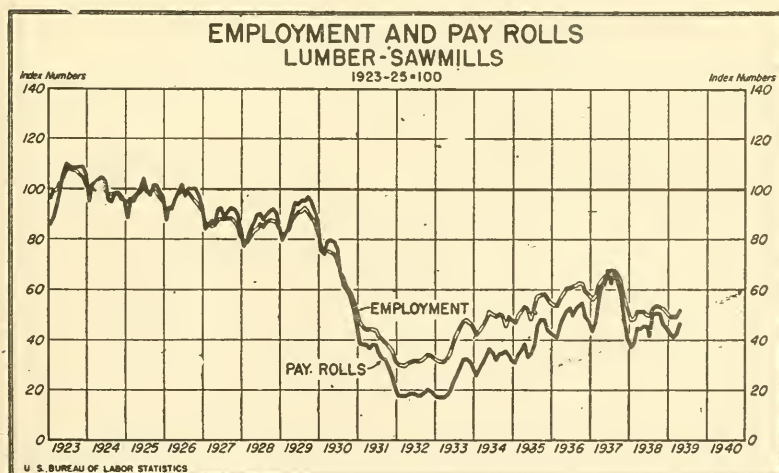


EXHIBIT No. 832



EXHIBIT No. 833

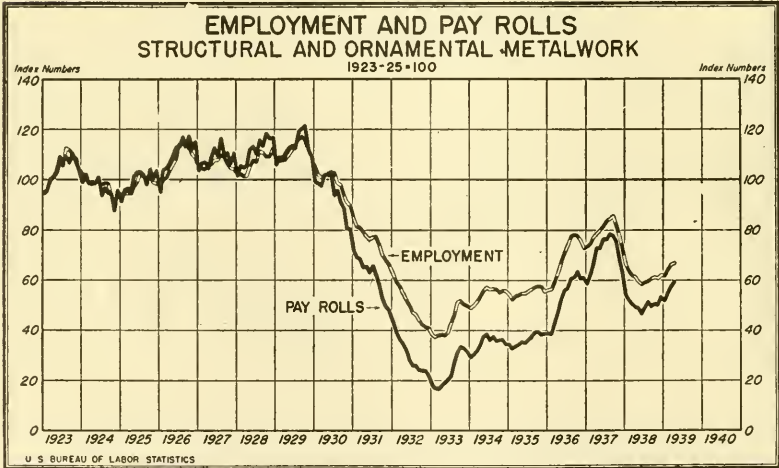
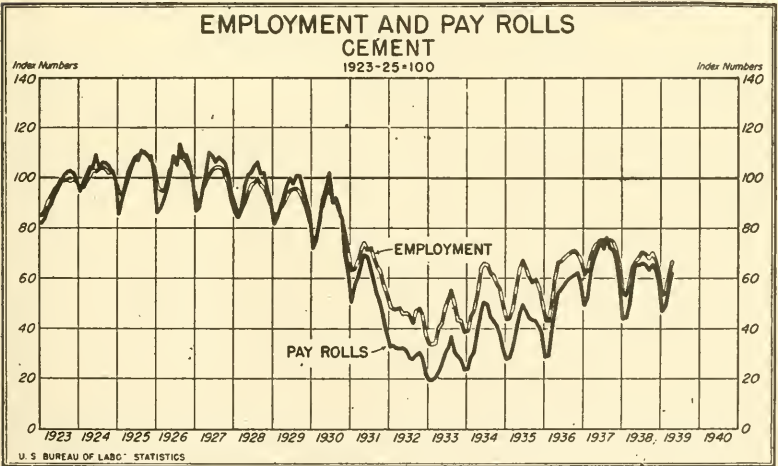


EXHIBIT No. 834



EXHIBIT No. 835



and a very important group of industries that were not furnishing the employment and consequently the purchasing power that was required to maintain the economy at the level at which it was operating. Or you might put the reverse argument, namely, had these industries improved proportionately to the improvement in other durable goods industries, 1937 would have seen employment in durable-goods industries far in excess of where it actually was.

Mr. O'CONNELL. So that, generally speaking, the durable-goods industry reached a level in 1937 about equal to '29, but that the portion of durable-goods industry that was directly involved in the construction industry was far below the average for the durable-goods industry?

Dr. LUBIN. Exactly. I should like to put into the record these charts which show employment and pay rolls in the construction-goods industries, the charts being designated as steam and hot-water

EXHIBIT No. 836



hearing apparatus, lumber-sawmills, lumber-millwork, structural and ornamental metalwork; brick, tile, and terra cotta; cement, and plumbers' supplies.

Acting Chairman REECE. They may be admitted.

(The charts referred to were marked "Exhibits Nos. 830 to 836" and appear on pp. 4939-4942. The statistical data on which these charts are based are included in the appendix on pp. 5463-5475.)

Dr. LUBIN. Now, a second evidence of the importance of the construction industry to our economy is shown by the fact that the construction industry—and again I want to limit that to the actual construction business, and exclude construction materials that go into building—the construction industry as such in 1929 employed about 5½ percent of the total gainfully employed nonagricultural workers of the country. It was the largest single employer of labor in America.

In 1938 the importance fell to the point where only 4 percent—

Acting Chairman REECE (interposing). Dr. Lubin, would you mind stating just what activity you include by construction industry?

Dr. LUBIN. Include building of residences, building of nonresidential buildings, repairs, alterations, and changes in existing buildings, highways, roads, streets, and so forth.

Acting Chairman REECE. Dams and construction of that kind?

Dr. LUBIN. All sorts.

Mr. O'CONNELL. Both public and private?

Dr. LUBIN. Public and private; yes. Now, as I say, the importance of the industry declined between 1929 and 1938. Whereas in 1929 the industry employed 5½ percent of those people who had jobs outside of agriculture, in 1938 it only employed 4 percent of that group. But a still more significant index of its importance is the fact that whereas construction activity contributed about 4 percent of the national income that was created in 1929—between 1933 and 1935 the industry only contributed 1.6 percent of the national income.

And there, again, I want to make clear that I am talking about the actual services and goods created through the construction industry. Now if, however, you include with the services and income contributed by the construction industry the goods that the industry brings into being, namely, those materials that it uses, you will find that the construction industry consumed about 15 percent of the products that were created in the United States between 1919 and 1935. In other words, the industry itself, through its own contribution and through the consumption of other goods, accounts during this period for about 15 percent of the commodities that were produced in the United States. Of course, there is no other industry that even approximates that amount.

(Mr. O'Connell assumed the chair.)

Acting Chairman O'CONNELL. Do you have comparable figures for years since 1935 on that point?

Dr. LUBIN. There is nothing available since 1935.

VOLUME OF CONSTRUCTION

Dr. LUBIN. Now, the next problem that confronts us, having shown the importance of the industry in the national economy in terms of employment, and the contribution the industry makes to the national income, is the value of this construction over a period of years, particularly during the last decade. It will be noted, and I want to repeat that this includes the value of all construction, which includes, as I said a minute ago, alterations and repairs as well as new construction.

In 1919 the industry was at the point where it was producing about \$6,000,000,000 worth of products. During the next 6 years it almost doubled the volume of its product and maintained that level for about 5 years. Since that time, however, its product has fallen to the point where in 1933 it produced \$3,230,000,000 worth of building, dams, roads, houses, and so forth, as compared to \$11,800,000,000 in 1925. Today, based upon the figures for 1938 it is estimated that the industry will produce about \$8,000,000,000 worth of product, which means that it is about two-thirds of the way back to where it had been during this period from 1925 to 1929.

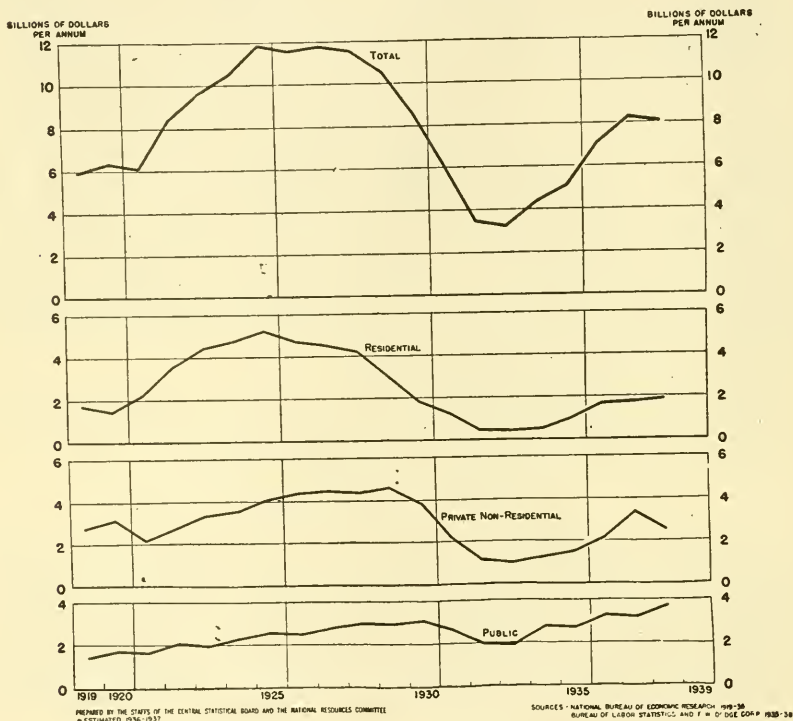
Now if you break your construction down into the various types you will note that residential building, which in 1925 aggregated \$5,202,000,000 in value, fell to the point where in 1933 it had reached

a level of \$392,000,000, a drop from five billion two to three hundred and ninety-two million dollars. On the other hand, private non-residential construction, which at its peak in 1929 was valued at \$4,500,000,000, fell to the point in 1933 where it aggregated slightly less than one billion—\$936,000,000, to be exact—whereas public construction, which reached its peak in 1930 and aggregated \$3,000,000,000, again reached a peak in 1938 where it was \$3,700,000,000.

In other words, whereas before 1930 residential building was con-

EXHIBIT No. 837

VALUE OF ALL CONSTRUCTION



sistently higher in value than nonresidential construction, since 1930 residential building in volume has been consistently lower than private nonresidential construction. In contrast, public construction, which before 1930 was consistently lower than private construction, has now reached the point where it is higher than either private nonresidential construction or private residential building.

And again I would like to point out this fact, that in 1930 public construction in the United States aggregated about \$3,000,000,000. That was the high point for which any records are available. That expenditure for public works declined regularly and fell to a little less than two billions in 1933; started increasing, reached a point of three billion two hundred millions in 1936; fell again in 1937 and in 1938 aggregated three billion seven hundred millions, which was higher than

any other year for which information is available. But I would like to emphasize that that peak of 1938 was only \$700,000,000 greater than the peak for 1930.

I would like to point out one further thing. The volume of construction, as will be noted from this chart, does not follow the general curve of business activity. You will note that the peak of construction in the United States was reached in 1925. From that time on there has been a gradual decline in total construction to the low point of 1933 with a gradual increase since.

You will note further that total construction does not reflect the general down-turn in business that occurred in late 1937 and early 1938. You will note that the only type of construction that reflects general business activity is nonresidential, which includes garages, factories, buildings of that sort, which followed pretty closely the line of general business activity and reflects the marked turn of 1937-38.

Acting Chairman O'CONNELL. Do you want to offer that chart?

Dr. LUBIN. Yes, sir. The chart is entitled "Value of All Construction."

(The chart referred to was marked "Exhibit No. 837" and appears on p. 4944. The statistical data on which this chart is based are included in the appendix on p. 5476.)

Dr. LUBIN. Now the question arises as to what effect Government building, Government construction, has had upon the general construction picture and this chart which I should like to offer for the record, entitled "Volume of Construction from Government Funds," gives the picture of what has happened to Government construction from 1925 to 1938. The chart is divided into three parts; the black part, solid black, representing State and local expenditures; local Government including counties, municipalities, and other subdivisions. The hatched part, cross-hatched part, represents that part of the construction that took place in that period of time, which was provided for by Government assistance, and by Government assistance I mean loans, grants, grants-in-aid, that were given by the Federal Government to the State and local subdivisions of government.

(The chart referred to was marked "Exhibit No. 838" and appears on p. 4946. The statistical data on which this chart is based are included in the appendix on p. 5476.)

Dr. LUBIN. I want to emphasize that these figures do not include C. W. A., F. E. R. A., or W. P. A. construction. In other words, it is all construction financed in whole or in part with Federal funds excluding those three agencies, C. W. A., F. E. R. A., and W. P. A.

Mr. ARNOLD. Why do you exclude them?

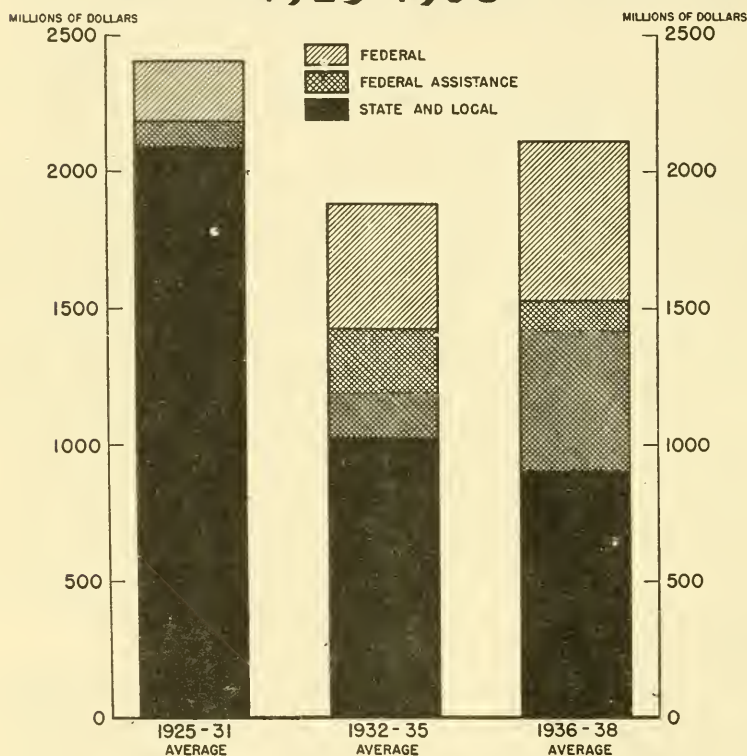
Dr. LUBIN. The purpose of excluding them is to cover primarily that construction which was undertaken by private contract rather than including that undertaken primarily to provide work relief; in other words, the Federal Government, State and local governments, under P. W. A., under loans made under the R. F. C. and otherwise, for the most part have their construction undertaken by private contractors. Such work is usually done under private contract, and the thing that I want to emphasize is the part that has been played in creating direct employment in private industry.

These figures, of course, would look quite different if we included such work as was done by W. P. A., F. E. R. A., and C. W. A. Those people, however, that were employed on those jobs were employees of

the Government at the moment they were employed, whereas, the people who were employed on these structures were virtually entirely employed by private contractors. The amount of force account work done either by the Federal Government, States, counties, municipali-

EXHIBIT No. 838

VOLUME OF CONSTRUCTION FROM GOVERNMENT FUNDS 1925-1938



SOURCE: CONSTRUCTION ANALYSIS UNIT W.P.A.

ties accounted for one-fifth of the total employment in recent years.

The point that should be emphasized here is that if you take the total amount of construction that is financed with Government funds, omitting the three agencies that I specified a minute ago, you will note that between 1925 and 1931 the average amount spent was \$2,404,000,000. Between 1932 and 1935, however, the average amount spent

per year was \$1,880,000,000. The average for the last 3 years, 1936 to 1938, was \$2,110,000,000. In other words, during the last 3 years the average amount spent per year on construction that was financed with either Federal, State, or local money was actually less than in the period from 1925 to 1931.

As a matter of fact, in 1925 the Governments of this country—Federal, State, and local—spent \$2,181,000,000 on construction. In 1930 they spent \$2,726,000,000 on construction. The maximum that has been spent since 1932 in any one year was \$2,194,000,000, which was in 1938. In other words, there is a difference of almost 600 millions between the maximum spent in any year since 1931 and the amount spent in 1930, which means, of course, that even Federal expenditures thus far have not, in any single year, made up the void that was created by the cities and States and counties cutting down the expenditures that they were making in the twenties. We still have failed to fill in that void which occurred as a result of retrenchment by State and local governments, despite the Federal contributions, which you will notice increased very markedly during this period of time, the average contribution between 1925 and '31 being about \$95,000,000 a year; the contribution between '32 and '35 being 406 millions a year, and between '36 and '38 averaging 629 millions.

If we break-down our chart on construction into residential units that were provided for in the so-called urban areas of the country, and by urban areas I mean so-called nonfarm areas, if we take our construction figure, take out residential units and break them into their various constituents, you will find that the construction industry of America during the twenties created approximately 700,000 new dwelling units in the nonfarm areas.

Acting Chairman O'CONNELL. You mean per year?

Dr. LUBIN. Per year. The peak, of course, again having been reached in 1925.

In 1925, in fact, the American construction industry built 937,000 nonfarm dwelling units. By 1933 that number of 937,000 had fallen to the point where the industry was producing 54,000 units, a decline, you will note, to about 5 percent of where it had been in 1925.

In 1935, 10 years later, the industry only produced 144,000 units, as compared to 937,000 units in 1925. In 1936 the number rose to 276,000; the next year to 286,000; and the estimate for 1938 is 347,000. In other words, the industry is still operating at less than 40 percent of its contribution to the economy in terms of dwelling units provided in nonfarm areas as compared to the preceding decade.

If you take the decade as a whole, the decade of the twenties as a whole, we are just about half-way back, right now, as compared to the average for that whole decade. If you take the peak point of the last decade we are slightly more than a third of the way back to where we were.

Now the interesting question is what we are going to do in 1939. We estimate that during 1939 we will produce about half as many houses as we did in 1924-25. In other words, we estimate that we will produce something between 400,000 and 425,000 nonfarm dwelling units.

In that figure there is an estimate of about thirty to fifty thousand dwelling units that will be created by the United States Housing Administration, so that the net contribution by private industry, pri-

vate investment, to the building picture ought to run around something between 375,000 to 400,000.

It is interesting to note that the picture of construction so far as nonfarm residential units are concerned varies in different parts of the country. You will note, for example, that in the Northeastern States construction is about back to one-third of its high point of the past decade. On the other hand, in the North Central States construction is back to about 25 percent of the high of the last decade. In the South, however, where in excess of 100,000 units were provided last year, they are back to about half of where they had been during the active period of housing construction, and in the West they are about on the same basis as the South, namely just about half-way back to where they were at the peak of the last decade.

If one compared the situation today in these various parts of the country with the low point of the early part of this decade, you will find that in the North Central and Western States about nine times as many nonfarm residential units are being provided for as at the low point of 1933. In the Northeast and South, about six times as many dwelling units are being provided for as at the low point of the early part of the decade.

Acting Chairman O'CONNELL. Doctor, you wouldn't have any comment to make or any answer to the differences in degree of activity in the various sections?

Dr. LUBIN. I think various factors are involved there. I think the farm program is an important factor; I think the work of the Federal Farm Security Administration is a factor; I think the relative degree to which various parts of the country felt the down-turn of 1937-38 is an important factor.

(Representative Reece resumed the chair.)

Dr. LUBIN. That down turn was not evenly distributed. It came earlier in some parts of the country than it did in others; it never went down as fast or as far in some parts of the country as it did in others.

Mr. O'CONNELL. Would you care to offer that chart?

Dr. LUBIN. This chart, entitled "Residential Units Provided for in New Nonfarm Construction," is offered.

(The chart referred to was marked "Exhibit No. 839" and appears on p. 4948. The statistical data on which this chart is based are included in the appendix on p. 5476.)

AVAILABLE HOUSING AND HOUSING NEEDS

Dr. LUBIN. Having depicted the course of housing construction since 1920, both for the country as a whole and for the various parts of the country, the question arises as to what kind of housing has been available to the American family; and secondly, what kind of housing is needed by the American family. And this chart, Mr. Chairman, which I should like to submit for the record, entitled "Urban Nonrelief Families by Incomes," depicts the incomes of the American family, and this income, of course, in the last analysis determines what kind of houses these people can afford either to buy or to rent.

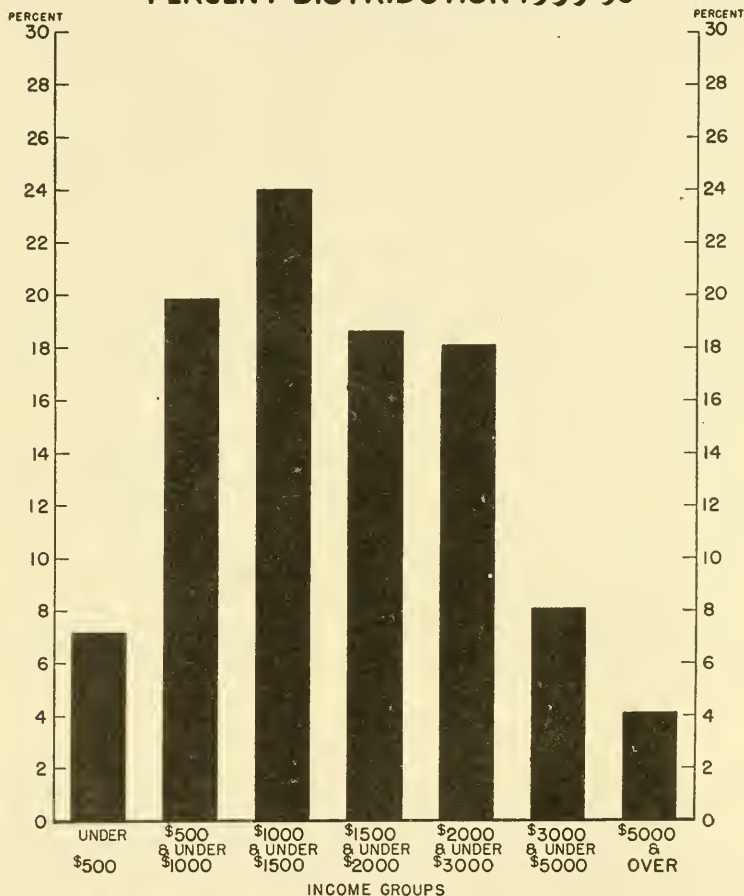
(The chart referred to was marked "Exhibit No. 840" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 5477.)

Dr. LUBIN. Now you will note from this chart that 7 percent, roughly, of the American families—and incidentally these are non-

EXHIBIT No. 840

URBAN NON-RELIEF FAMILIES *by* INCOME

PERCENT DISTRIBUTION 1935-36



U. S. BUREAU OF LABOR STATISTICS

relief families; there are no families in this picture who have received relief during the year covered, namely, '35 and '36——

Mr. ARNOLD (interposing). At this point will you state the percentage of relief families? This is the entire country, isn't it, of nonrelief families? What is the percentage of relief families?

Dr. LUBIN. The Work Projects Administration estimates that at present about 15 percent of the families in this country are being aided by one or more of the various public work, relief, and assistance programs.

It will be noted that in the United States as a whole approximately 7 percent of the nonrelief families had an income of \$500 or less in 1935-36. Twenty percent had incomes of between \$500 and \$1,000; 24 percent had incomes of between \$1,000 and \$1,500, which gives you a total of 51 percent of the families of this country having incomes below \$1,500.

You will note that once you get above the \$1,500 income group the spread is rather marked. Eighteen percent of the families have incomes between \$1,500 and \$2,000, about the same proportion have incomes between \$2,000 and \$3,000; 9 percent have incomes of \$3,000 and under \$5,000, and a little over 4 percent have incomes of \$5,000 and over.

If you take these families by groups and ask yourself how much they can afford to pay for rent, you can get an index of the type of housing that must be provided for the American people if such housing is to be provided within the income that is available to them.

I want, however, before moving into that segment of the picture, namely, how much these people can afford to pay for rent or for houses that they can purchase, to point out that this distribution of families by income which represents the Nation as a whole does not portray the variations that are found as you go from city to city, from geographical area to geographical area, or as you look at the picture that exists in cities of different sizes.

Merely for illustrative purposes I have broken down the income picture of families of four different cities, a large metropolitan city, Chicago; a large city but not a metropolitan city, Portland, Oreg., representing the west coast; a middle-sized city, Mobile, Ala.; and a small industrial town, Beaver Falls, Pa., and you will note the contrast between the distribution of income in these cities as compared to the national picture shown here, and it is particularly noticeable that even between these different cities there is a marked difference in the concentration of these incomes.

I should like to submit this chart entitled "Family Income, Percent Distribution 1935-36," for Chicago; Portland, Oreg.; Mobile, Ala.; and Beaver Falls, Pa.

Acting Chairman REECE. It may be admitted.

(The chart referred to was marked "Exhibit No. 841" and appears on p. 4952. The statistical data on which this chart is based are included in the appendix on p. 5477.)

Dr. LUBIN. The significant thing that should be pointed out is that in Chicago about 3 percent of the families have an income of \$500 or less, in Mobile 5.3 percent have incomes of under \$500, in Portland, Oreg., 3.8 percent have incomes of under \$500.

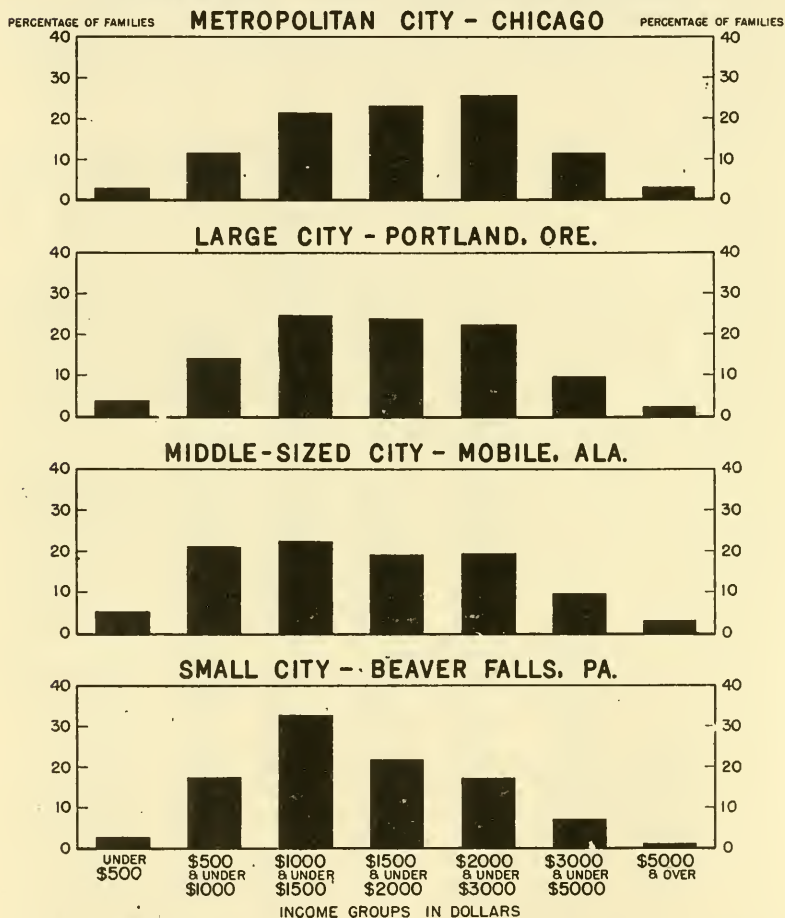
If you move to the next category, namely, those families that have incomes of between \$500 and \$1,000, you will note that in Chicago 11.6 percent are in that income bracket, whereas in Portland, Oreg., 14 percent are in that bracket, whereas in Mobile, 21 percent are in that bracket, and in Beaver Falls 17 percent. In other words, there are proportionately twice as many families in Mobile, Ala.,

proportionately, that have incomes between \$500 and \$1,000 as in the city of Chicago.

If you get to the \$1,000 to \$1,500 group, you will find that in Beaver Falls, 33 percent of all the families have incomes in that bracket; in Chicago, however, about 21 percent have incomes in that bracket; in

EXHIBIT No. 841

FAMILY INCOME PERCENT DISTRIBUTION 1935-36



U. S. BUREAU OF LABOR STATISTICS

Portland, Oreg., about 25 percent; and in Mobile approximately 22 percent. In other words, in a small city like Beaver Falls, which is taken at random, we find that 53 percent of the families have incomes of \$1,500 or less; in a city like Mobile, Ala., 49 percent of the families have incomes of \$1,500 or less; in Portland, Oreg., on the other hand, the number is much smaller, only 42 percent having incomes of

\$1,500 or less, and in a metropolitan area like Chicago, only 36 percent have incomes of \$1,500 or less, illustrating in part the fact that the ability to purchase or rent homes will vary from city to city with the distribution of family income in those cities, so that in attacking the problem of what sort of structures should be provided for the families of the United States, our approach will have to be based entirely upon what the conditions are that prevail in each community.

If you get to the \$2,000 and \$3,000 income group, you find that in Chicago, for example, a fourth of your population are in that group and accordingly can afford to pay relatively higher rents and relatively higher prices for their homes. On the other hand, in Portland, Oreg., the proportion is about the same as in the other group, \$1,000 to \$1,500, namely 22 percent. In Mobile, Ala., on the other hand, only one family in five has an income between \$2,000 and \$3,000, whereas in Beaver Falls, approximately one family in six has an income of between \$2,000 and \$3,000.

Mr. O'CONNELL. Doctor, in that chart too are relief families excluded?

Dr. LUBIN. Relief families are excluded from all these charts.

Mr. ARNOLD. That is, the under \$500 families are those that can exist on that amount without relief, families of two?

Dr. LUBIN. What you find, as a matter of fact, is that they use up their savings, receive gifts, they receive help from their friends and relatives, they go into debt. As will be shown on the chart showing rentals in this area,¹ there were cases where they spent more on rent than their actual total income.

Mr. ARNOLD. That is interesting, because those under \$500 families not on relief are really a charge on the income of some of these other families of \$500 to \$1,000 and \$1,500 to \$2,000.

Dr. LUBIN. And in some instances they are a burden on the people in the upper brackets who happen to own the property in which they happen to live and which they don't actually pay rent for.

Mr. O'CONNELL. In other words, I suppose they are potentially relief people too.

Dr. LUBIN. Yes; no doubt.

Mr. O'CONNELL. They are to the extent they are living on savings and accumulations of the past when those are exhausted.

Dr. LUBIN. In the sense that they go into debt in order to live.

Acting Chairman REECE. To what extent do you find the rentals vary in those different cities?

Dr. LUBIN. I am coming to that in just a minute.

Mr. ARNOLD. Just another question that you may not be able to answer. I should imagine that there is a very much larger percent between \$1,000 and \$500 of the families that couldn't live on their income? Isn't that a fact?

Dr. LUBIN. That will vary again by the size of the community.

Mr. ARNOLD. Could a family of two in Chicago live on \$1,000?

Dr. LUBIN. A lot of them are doing it.

Mr. ARNOLD. When you get down to \$750 certainly they are living beyond their income.

Dr. LUBIN. Yes; in those instances as a matter of fact up to \$1,700 in Chicago the average family incurs a deficit before the year is over and incurs that deficit either by getting into debt or by using past

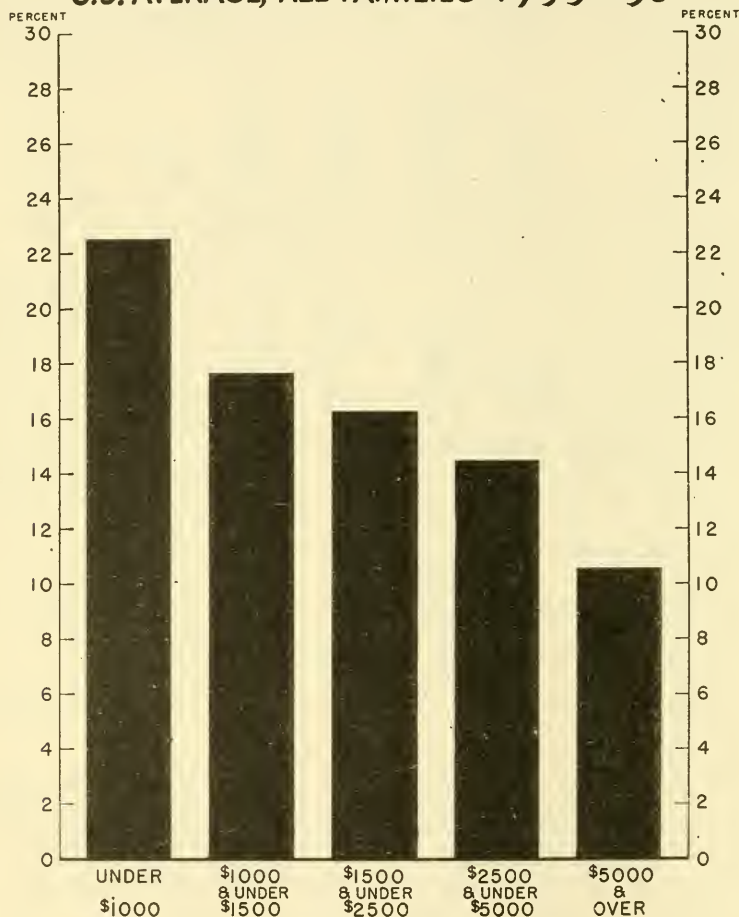
¹ See "Exhibit No. 843," *infra*, p. 4956.

savings to break even. About \$1,700 is the break-even point for the average family in Chicago. By and large, the average family doesn't spend more than it actually has to spend—when I say actually has to spend, I mean in terms of its income for the year in question.

EXHIBIT No. 842

PERCENTAGE OF FAMILY INCOME SPENT FOR HOUSING

U.S. AVERAGE, ALL FAMILIES 1935-36



U.S. BUREAU OF LABOR STATISTICS

INCOME GROUPS

The question is, how much of this income that we have been showing goes for rent or to cover the cost of housing as such. In this chart, which I should like to submit for the record showing the percentage of family income spent for housing, there is revealed the fact that the family that received \$1,000 or less per year in income in

1935-36 spent about 23 cents out of every dollar for housing; the families that had incomes between \$1,000 and \$1,500 spent about 17½ percent of the income for housing; the families with incomes between \$1,500 and \$2,500 spent about 16 percent of their incomes for housing; the families with incomes between \$2,500 and \$5,000 spent 14.4 percent for housing; the families that had incomes of \$5,000 and over spent 10½ percent of their income for housing.

(The chart referred to was marked "Exhibit No. 842" and appears on p. 4954. The statistical data on which this chart is based are included in the appendix on p. 5478.)

Mr. ARNOLD. That chart is headed "Spent for Housing." Do you mean other charges in addition to rent?

Dr. LUBIN. It should say "housing." It means not only whatever rent is paid, but the actual carrying costs of property that was owned by these individuals.

If you take this additional picture and break it down into its constituent parts, taking these same four cities we showed a moment ago, namely Chicago, Portland, Oreg., Mobile, and Beaver Falls, you will notice the tremendous variations that exist in the proportions of the incomes of these families that go to cover housing costs.

In the city of Chicago the average family that had an income of under \$500 spent more than \$500 for rent; in other words, they spent for the year 1935-36, 116 percent of their actual income for rent. Now you ask how they did it. They begged, they borrowed, they didn't pay their rent. In other words, this was the obligation they incurred; the rental charge for them, if they paid it, was about 16 percent more than the actual total income of the family.

In Portland, Oreg., of every dollar of income of families that had less than \$500 in that year, 64 cents went for rent; in Mobile, 43 cents out of every dollar went for rent, and in Beaver Falls, 63 cents out of every dollar went for rent.

As you get up to the higher-income brackets, the importance of that factor becomes less and less, but even in the \$500 to \$1,000 income group rental is a very important factor in the family budget. In Chicago a family with an income of between \$500 and \$1,000 spends 35 cents out of every dollar; in Portland only 24 cents; in Mobile only 21 cents out of every dollar, and in Beaver Falls 23 cents out of every dollar.

Mr. O'CONNELL. This chart is purely rent rather than housing as in the last chart?

Dr. LUBIN. Yes. These are actual rentals.

Of course, the relatively small percentage that goes to rental in some of these cities is a result of various factors. Rents are lower, and one of the questions I think that would be expected to be answered before these hearings are over is what accounts for this difference in rental levels. Is it land values, is it tax values, is it cost of construction, is it type of housing that is available?

One can go down the list here and get to the \$5,000 income group and find that in Chicago out of every dollar about 13 cents goes to rent, in Portland only 9½ cents, in Mobile about 9½ cents out of every dollar, and in Beaver Falls about 7 cents out of every dollar.

I do want to reemphasize the fact that in the group which has incomes of \$1,500 or less, anywhere from 16 cents to \$1.16 out of every dollar of family income is a rental-housing item.

Mr. O'CONNELL. Would you offer that chart for the record?

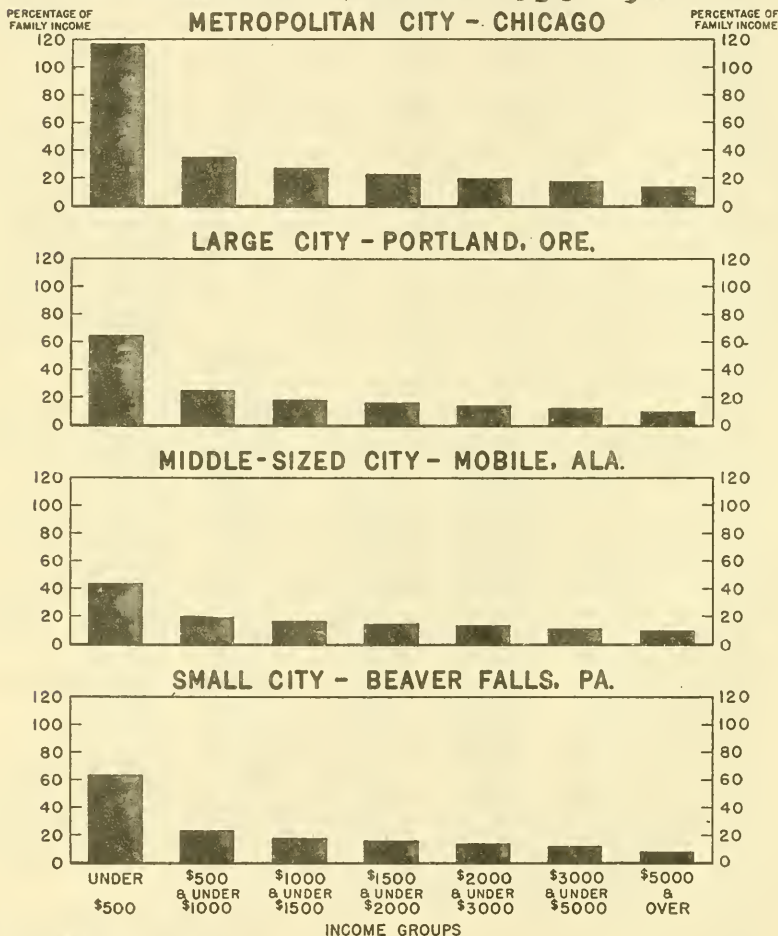
Dr. LUBIN. That is "Ratio of Rent to Family Income, 1935-36."

Acting Chairman REECE. It may be received.

(The chart referred to was marked "Exhibit No. 843" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 5478.)

EXHIBIT No. 843

RATIO OF RENT TO FAMILY INCOME BY INCOME GROUPS 1935-36



U.S. BUREAU OF LABOR STATISTICS

Acting Chairman REECE. I believe you stated earlier that it is your desire that all these charts be admitted to the record, is it not?

Dr. LUBIN. Yes.

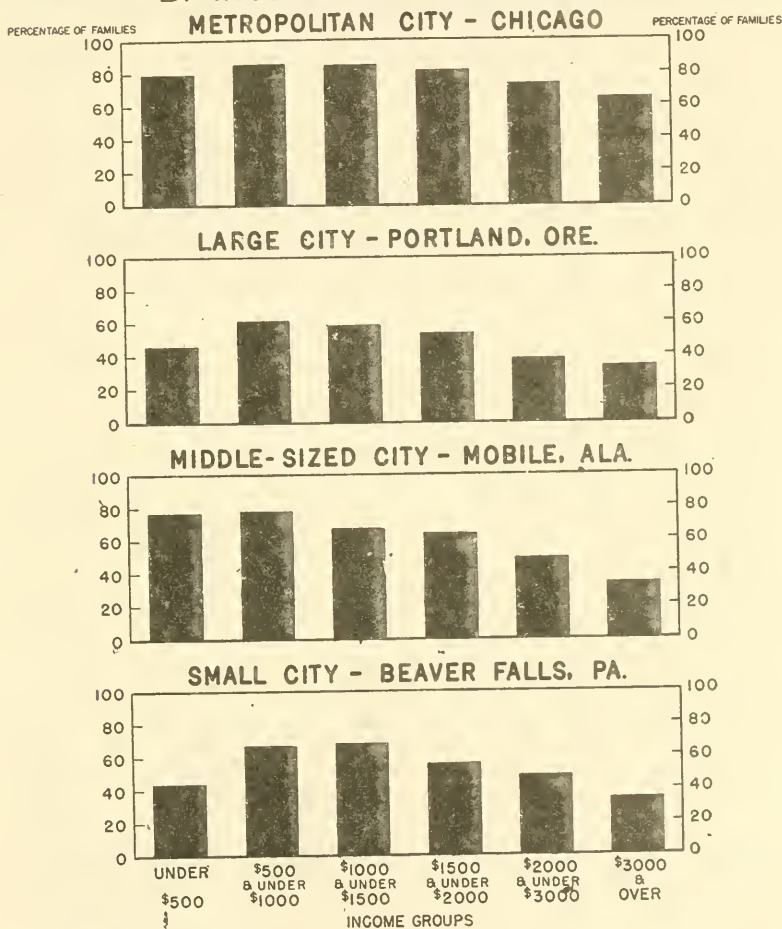
Acting Chairman REECE. You will see that they get in, and they will all be admitted.

Dr. LUBIN. Yes.

In discussing this question of housing one has heard considerable discussion as to building homes to be sold to workers. Your problem of housing for the American family is much more than the problem of building individual houses to sell. Your problem for the average family in this country is a problem of providing housing that he can

EXHIBIT No. 844

PERCENTAGE OF FAMILIES RENTING BY INCOME GROUPS 1935-36



rent, at least if the experience of the American people at the present time is any criterion. Now it may be that they will change their living habits and can be persuaded to move from the category of renters to the category of purchasers.

Dr. LUBIN. I want to emphasize the fact that in a city like Chicago you have anywhere from 64 to 85 percent of your population

living in rented quarters. In the city of Portland, Oreg., even in the \$3,000 income group, approximately one-third rent their homes. When you get to the \$1,000 group over 60 percent live in rented quarters. In a city like Mobile, Ala., three-fourths of the people earning \$1,000 dollars or less live in rented quarters and about a third earning more than \$3,000 live in rented quarters. In a small industrial city like Beaver Falls, two-thirds of the people earning between \$500 and \$1,500 live in rented quarters and a third earning over \$3,000 live in rented quarters.

In other words, the American family in the lower-income group is predominantly a family that lives in rented homes and not in homes that they own themselves.

(The chart referred to was marked "Exhibit No. 844" and appears on p. 4957. The statistical data on which this chart is based are included in the appendix on p. 5478.)

Dr. LUBIN. If we take these same cities for which we have noted the distribution of income and for which we have noted the percentage of income that goes to rent, and for which we have noted the percentage of families that live in rented homes, if you take the structures in which these people live in these cities you will find, as evidenced in this chart, entitled "Rented Units Lacking Selected Facilities," that a very important percentage of these families are living in quarters that can be defined as substandard quarters.

(The chart referred to was marked "Exhibit No. 845" and appears on p. 4959. The statistical data on which this chart is based are included in the appendix on p. 5479.)

Acting Chairman REECE. Doctor, do you expect to give any definition of substandard houses?

Dr. LUBIN. Yes, I shall; definitely. If you define as substandard a dwelling which is unfit for human occupancy or in need of major repairs, you will find that there are approximately 4,000,000 substandard dwelling units in the United States today, and that is the minimum estimate—

Acting Chairman REECE (interposing). I had in mind particularly what constitutes a substandard house with reference to facilities in the house.

Dr. LUBIN. Well, let me put it this way. There are various estimates of substandard depending upon the definition that you use. If you use as your definition a house that is not fit for human habitation, and of course there again your criteria may vary, but a house which is so run down that it is unsafe to live in or unhealthy to live in, and if you include in that definition houses that require major repairs—you will find that approximately 16 percent of the dwellings of the United States, about 4,000,000 of them, will come within that category.

If, on the other hand, you use as substandard the criterion of a house that has no bathroom at all, you will find that over 5½ million houses come within that category.

Mr. ARNOLD. You mean that these 4,000,000 substandard houses are all without bathrooms, private bathrooms?

Dr. LUBIN. That, plus the fact that they are so in need of major repairs.

Mr. ARNOLD. For instance, in New York City, in some of those tenements, they might have a bathroom but would be substandard for other reasons.

Dr. LUBIN. If you take these various cities——

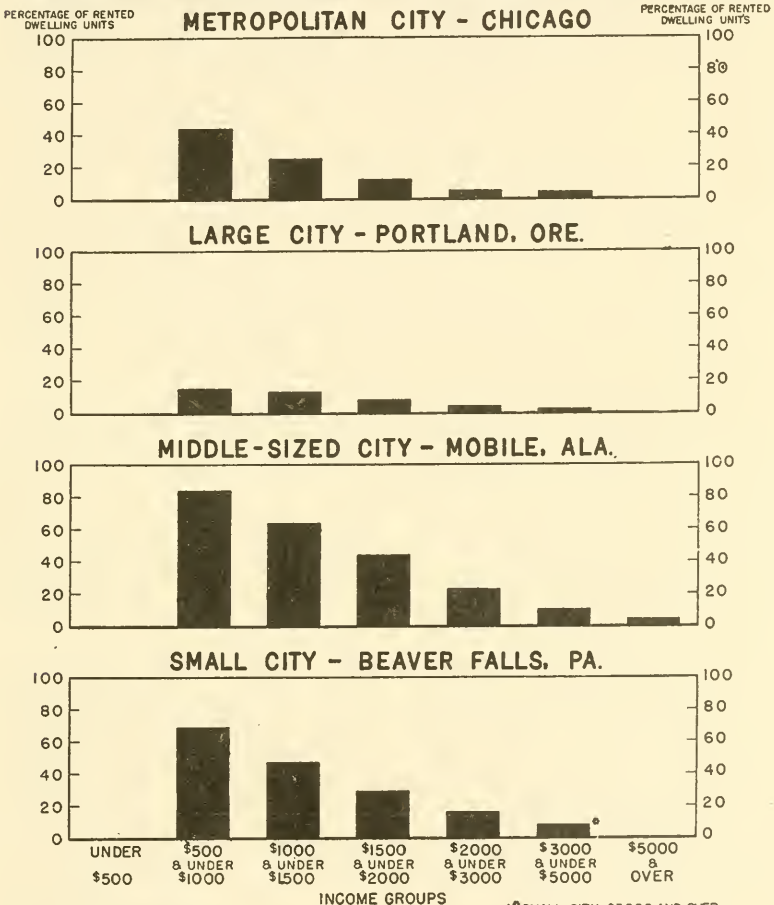
Mr. ARNOLD (interposing). One question. You say "selected facilities." Does that phrase mean any particular selection?

Dr. LUBIN. Yes. In this instance we have arbitrarily taken certain facilities; namely, running hot water, indoor toilet, and electric lights.

EXHIBIT No. 845

RENTED UNITS LACKING SELECTED FACILITIES

PERCENT OF TOTAL RENTED - BY INCOME GROUPS-1935-36



In these cities we have attempted to measure the number of dwellings that lack any one of those things or that lack one or more of those things. In other words, that chart depicts the percentage of the total rented units that lack either running hot water, indoor toilet, electric lights, or both or all three.

Mr. ARNOLD. This chart does not include houses out of repair, or anything of that sort?

Dr. LUBIN. No, it does not. These others would be in addition to it. You will note that in Chicago, for example, in this income group between \$500 and \$1,000, 44 percent of the renters live in dwelling units that have no running hot water or no electric lights or no inside toilet.

In the city of Mobile, Ala., 84 percent of the families in the income group between \$500 and \$1,000 lack one or more of those facilities. In the city of Beaver Falls, 69 percent of the families between \$500 and \$1,000 lack one or more of those facilities.

Or, if you move to the higher-income groups, between \$1,000 and \$1,500, in Chicago one family out of every four lacks one or more of those three facilities. In Mobile, Ala., two-thirds of the families, 64 percent to be exact, lack one or more of those facilities. In Portland only 13 percent lack those facilities, and in Beaver Falls, 47 percent, almost every other family, lack one or more of those facilities.

It is only when you get to the income groups of around \$3,000 and \$5,000 where the relative number of families that don't have all three facilities is insignificant.

In Chicago, 4 percent of the families with incomes between \$3,000 and \$5,000 lack one or more of those facilities; in Portland, only 2 percent; in Mobile, 10 percent. If you get into the income group of five thousand and over, every family in Chicago with that income has all of these facilities, every family in Portland has all of these facilities, and 4 percent of the families in Mobile do not have them.

In other words a large segment of the American families, both in the largest cities and the smallest cities, is still living under conditions which do not meet what we might call a standard housing condition, namely, conditions which afforded a private toilet, and running hot water and electric lights, and other conditions of housing which lead to healthful living and to safe living.

That raises the question as to what we are doing for these families in the construction field. The percentage, as I say, of families in the \$500 to \$1,000 group, or even in the \$1,000 to \$1,500 group, in Chicago, in a city like Mobile, in a city like Beaver Falls, Pa., of families that are living under conditions without these various conveniences is very large.

Now, in this chart, entitled "Houses City Families Can Afford and Houses Built, 1938," on the assumption that most of the houses built in 1938 would have these minimum conveniences, we have attempted to get some idea of what provision is being made for these people who, as shown a minute ago, today do not have these so-called minimum conveniences which can be considered as a necessity to maintaining a decent level of housing.

(The chart referred to was marked "Exhibit No. 846" and appears on p. 4962. The statistical data on which this chart is based are included in the appendix on p. 5479.)

Acting Chairman REECE. Before you go into that chart, Doctor, may I ask another question in regard to the preceding chart? It isn't necessary to display it again.

If one of the facilities included, that of running hot water, should be changed to running cold water, would that very materially affect the percentage?

Dr. LUBIN. I think it would in certain areas, yes, very definitely.

Acting Chairman REECE. Some people do think——

Dr. LUBIN (interposing). The fact is, I think we could give you some figures as to just what effect it would have upon the percentage. The percentage would still be very large in the sense that a very appreciable number of people in this country would still be found to be living in homes that have no running water at all, and these are non-farm families, families that live in towns, villages, or larger cities.

Acting Chairman REECE. In making up a definition of minimum facilities, and these three facilities are included as a minimum, is the difference between running hot water and running water sufficient to justify a house being below standard because it has running water instead of running hot water?

Dr. LUBIN. Well, of course, there again you get to the question of your criteria of American living. I mean, is it reasonable to expect that an average American family should have available to it, in its home, running hot water?

I personally think yes. I think that it is not at all unreasonable to expect, for any family to expect, that it should have running water available to it, running hot water available to it in the event it wants to take a bath or do any cleaning or anything of that sort. Now of course there are a lot of people who think that even bathing isn't necessary to maintaining a decent standard of living, and they will say, therefore, hot water isn't necessary, but——

Acting Chairman REECE. By the three minimum facilities you outline—they don't include bathrooms in any case, however?

Dr. LUBIN. No. Of course if you take the case of bathrooms, if you are going to use bathrooms as a basis for measuring substandard housing, then you would find 5½ million homes in the United States substandard; every fifth house in this country is substandard on that basis. Or if you take lacking hot water, lacking electric lights, lacking bathrooms and things of that sort, take any two or more of those, and you may get up to over 7,000,000 substandard houses. Now I have attempted to deal with the minimum possible criteria that I could figure out, and if you take just those houses that are in need of major repairs, or those houses that are unfit for occupancy because of safety or health conditions, you get down to 4,000,000.

Now, that is the minimum number of substandard we can think of.

Mr. ARNOLD. Do you have the figure for all three?

Dr. LUBIN. No.

Mr. ARNOLD. You gave me the figures for two and I thought you might have the figures for three.

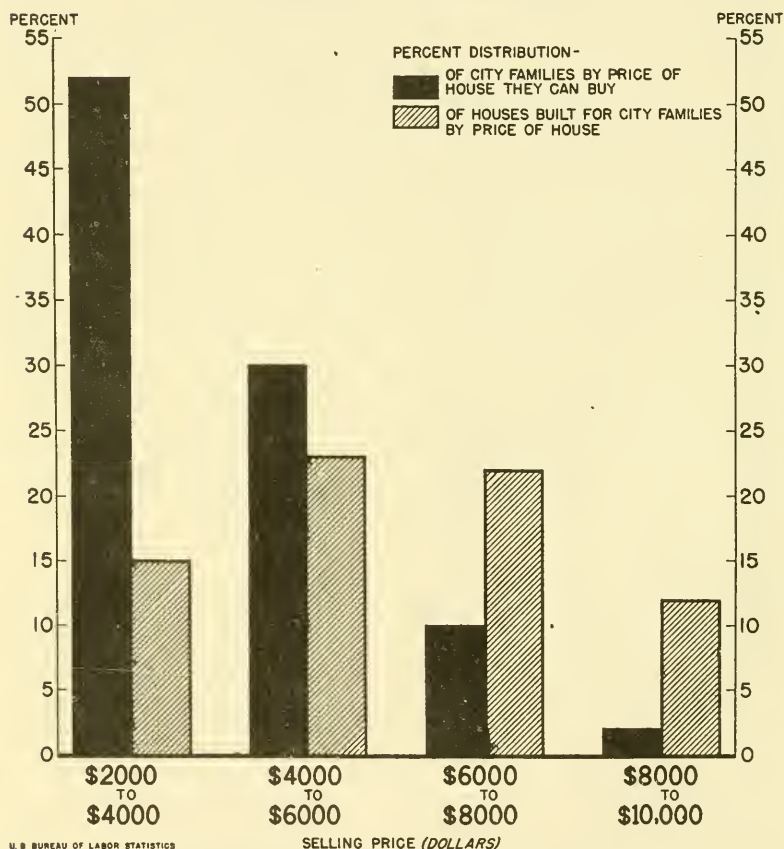
Dr. LUBIN. Granted that your criteria will vary with different parts of the country and different economic income groups, you still get to the point where you find 4,000,000 of them which are substandard, by the most stringent test, namely, unfit for human habitation or in need of major repairs. Getting back then to the question of what provision is being made for these families, I should like to insert for the record this chart showing houses city families can afford and houses built in 1938.¹

The figures for "Houses built" are based on preliminary data from the Bureau of Labor Statistics Building Permit Survey. They exclude houses selling for less than \$2,000 and for more than \$10,000. Our

¹ Previously entered as "Exhibit No. 846," *infra*, p. 4962.

EXHIBIT No. 846

HOUSES CITY FAMILIES CAN AFFORD AND HOUSES BUILT-1938 PRELIMINARY ESTIMATES



data at these extremes of the price range are pretty sketchy, and the range from \$2,000 to \$10,000 is all that is necessary to make the point which I wish to bring out.

The figures for "Houses city families can afford" are derived as follows: We know the distribution of families by income, and we know the income of families purchasing new one-family houses by means of F. H. A.-insured mortgages last year. These F. H. A. figures show the price of houses bought by families having a given income. With exceptions noted later, we have taken all the families at a given income, and assumed that the same proportion as shown by F. H. A. could afford houses at \$2,000 to \$4,000, \$4,000 to \$6,000, and the like. This was done for each income group, and then the numbers were added for each price of house, and were put on a percentage basis by price of house. For example, if three-fourths of the \$1,000 to \$1,500 income families buying houses under the F. H. A. plan paid from \$2,000 to \$4,000, and the remainder paid more than \$4,000, and if there were 3,300,000 families receiving \$1,000 to \$1,500 income, it was assumed that 2,475,000 could afford a \$2,000 to \$4,000 house and that 825,000 could afford one costing \$4,000 or more. In the next higher income group, \$1,500 to \$2,000, 40 percent of the families buying houses under the F. H. A. plan paid \$2,000 to \$4,000, so it was assumed that 40 percent of all families in that income range, or 1,050,000, could afford to live in homes costing \$2,000 to \$4,000. The 2,475,000 was added to the 1,050,000 and to numbers derived in a similar manner for other income groups to give the total number of houses costing from \$2,000 to \$4,000 which families of all income groups could afford to live in. The same procedure was followed for each price of house class and the numbers were put on a percentage basis and charted. They are the black bars, designated "Houses city families can afford."

This method may give a conservative picture of what families can afford, because the F. H. A. has definite standards for mortgages it will accept for insurance and the mortgages actually accepted in many cases exceed the minimum which F. H. A. would just barely accept. On the other hand, some of the families included as being able to afford a house might not be eligible for an F. H. A. insured mortgage, due to instability of income, lack of adequate down payment, and so forth. This might offset the conservative tendency of the estimates mentioned above. "Houses city families can afford," in summary, is based on the average experience of F. H. A. in 1938, rather than on the minimum which would make a mortgage eligible for F. H. A. insurance.

I mentioned earlier that all families were not included. There are about 14,000,000 urban families who receive no relief whatever during the year. About 12,000,000 of these have incomes of \$750 or more per year. But a large family, living in a city in which food costs are high, could not afford to buy or rent a house costing \$2,000 on an income of \$750 without skimping on food to the point of endangering health. Accordingly, a further reduction of about 270,000 families has been made to allow for such families. It was pointed out earlier that our data on houses built were not good enough to present for the highest priced houses—those costing \$10,000 or more. In order to maintain comparability, we have also excluded some 320,000 families who could afford houses costing \$10,000 and more. This

leaves about 11½ million (11,400,000) families that presumably could afford to pay the rent or the purchase price of houses worth from \$2,000 to \$10,000. The price of houses they could afford is shown in the chart, in percentage terms.

Approximately 48 percent of the families in the cities could have bought houses between two and four thousand dollars in the sense that their incomes were sufficient to justify their buying houses in that category, two to four thousand. However, only 20 percent of the houses that were built were in that category. Or to put it another way, in the four to six thousand dollar house group, approximately 37 percent of the families in the cities had income sufficiently large either to buy or rent such houses. However, only 32 percent of the houses built that year were for that category.

In the six to eight thousand dollar group you just get the reverse situation. Twelve percent of the city families could afford to buy that kind of a house, but 32 percent of the houses built were in that category, and when you come to the eight to ten thousand dollar group, 3 percent of the families could afford that kind of a house, and five times as many houses were built for that group. In other words, 16 percent of the houses were built for the group. To make the thing still more clear, of the various people in the city, various families in cities, taken as a whole, approximately 48 percent of them could afford, in terms of their income, to buy or to rent a house which would sell for from two to four thousand dollars in 1938.

Acting Chairman REECE. Now, in reaching that determination, Dr. Lubin, have you taken into consideration not only the ability of these families to buy a house the price of which ranges from two to four thousand dollars, but also their ability to maintain it, particularly, pay taxes on it, which becomes a very important item in the cities?

Dr. LUBIN. That is why I said specifically it made little difference whether they bought it or rented it. In other words, 48 percent of the people could afford to live in homes whether they rented or bought them. If they rented of course they paid taxes and maintenance indirectly through the rent; could afford to live in homes that cost between or sold between two and four thousand dollars in that year, and yet of all the houses the building industry built, only 20 percent were in that category.

Mr. ARNOLD. Is this chart cumulative? Does the first black line include the others?

Dr. LUBIN. No.

Mr. ARNOLD. The total percentages of those black lines on the chart are 100, aren't they?

Dr. LUBIN. Yes; but you must remember we haven't got anything less than two thousand, and have nothing more than ten thousand. The \$2,000 to \$10,000 equals 100 percent.

Mr. ARNOLD. Then I would probably misinterpret the chart if I said that only a few percent can't afford to build houses. That isn't what the chart means, is it?

Dr. LUBIN. The chart says that 48 percent of the families in the United States can afford to either buy or rent houses that sell between two and ten thousand dollars, whereas in 1938 only 20 percent of all the houses built were in that category.

Mr. O'CONNELL. Doctor, may I interrupt you a minute? Converting the two to four thousand dollar figure into the incomes of the

families that can presumably afford to buy that type of house, I was under the impression that that black line represented persons whose income was in the group ranging from about \$1,000 to about \$1,750 a year.

Dr. LUBIN. Yes. In other words, the practice is this, that on the average a fellow who has an income of less than \$1,000 a year could afford to buy a house which would sell for about 2.9 times his income; in other words, if his income is about a thousand dollars a year he shouldn't pay more than \$2,900 for a house. On the other hand, if you get to \$3,000 a year, the theory is that he ought to be able to spend about twice his income for a house.

Mr. ARNOLD. I begin to see. In other words, if we had proper credit facilities, amortization charges, these people could afford to buy a house, but under present conditions a family with an income of \$1,000, or say seventeen hundred fifty, can't afford to buy any. I don't know where they would get the money.

Dr. LUBIN. As a matter of fact, the fellow who has an income of \$1,500 a year, if he bought a house in a given category he might be spending less for rent than he is spending today, may he not?

Mr. ARNOLD. If the credit facilities are properly arranged. You are thinking of a plan by which he can amortize his payment.

Dr. LUBIN. Of course I think the difficulty arises out of the fact that we are talking about buying houses, because these figures are based upon sales in 1938, but the fact still remains that whether you deal with sales, buying houses, or renting a house, I mean the house that one lives in, that somebody else owns, if that owner purchased the property the picture would be the same. In other words, the man who bought a house to rent to somebody else would be working on that same basis, namely that if he was going to buy a house to rent and he was going to pay between two thousand and four thousand dollars for that house to re-rent, the probability is that something just under 50 percent of the families in the United States could afford to rent that house. On the other hand, the actual number of houses built in that category was only 20 percent of the total, you see.

Mr. O'CONNELL. So, generally speaking, I take it you think the chart indicates that in terms of supplying the needs or at least the potential purchasing capacity of families in the lower income groups, say from \$1,000 up, that the present operation in the industry is such that the major bulk of the construction is for people in the higher-income groups.

Dr. LUBIN. In other words, if you get into the upper-income brackets, you find that about 3 percent of our families can afford to buy houses between eight and ten thousand dollars. Last year 16 percent of the houses built were for those families. On the other hand, you get to the four to six thousand dollar houses, 37 percent of our families can afford to live in those houses, but only 32 percent of the houses built were for that group.

If you get down to the two and four thousand dollar house nearly half of the families we have included can afford only to live in that kind of a house—nothing better. But only 20 percent of the houses built last year were for those families.

Mr. O'CONNELL. Even on an absolute basis, more houses were being built for the higher-income groups than for families in lower-income

groups, although percentagewise there are more families in the lower-income groups, is that correct?

Dr. LUBIN. Plus the factor that you are building more homes in that higher-priced class than the percentage of the population justified being built. Whereas in the lower, cheaper houses, lower-cost house, you weren't building anywhere near as many percentagewise as the population would have justified your building.

All of this leads up to the question as to what we might expect of the building industry and what effect an increase in building construction, particularly housing construction, would have upon industry as a whole. As I attempted to point out, the building industry has not kept pace with industrial activity as a whole. Both in actual employment of people on construction as such and in the employment of people in making the materials that go into housing there has been a tremendous lag, a very important lag, between activity in industry as a whole and those industries that depend upon construction for their existence. The industry has not been producing units as fast as the number of families in this country has been increasing. To be sure, in the twenties the industry overdid it; we built many more units than we needed. The result is that you had very high vacancy rates in 1929 and 1930. The failure of the industry to produce after 1930 in a sense resulted in filling up that void so that by now the number of vacancies in the United States is very, very small, estimates running around 2 percent, which is a very low vacancy rate for the United States as a whole. In other words, we have reached the point where we no longer have the surplus to use up, the surplus which was created in the twenties, and if we are going to maintain the standards of housing in the United States we must markedly increase the number of dwelling units that are created for our families.

If one were to look into the future and attempt to estimate just how much home construction we need in the United States, I think we would find a picture something like this: that we can expect that during the next 10 years there will be added to our population in this country each year an average of about 280,000 new families. Those 280,000 new families will have to be provided with some form of dwelling unit or other. During the next 10 years we can look forward on the basis of past experience to about 45,000 dwelling units being destroyed annually through demolition; in other words, the average should run between 40,000 and 50,000 dwelling units per year which will be taken out of circulation in the sense that they will no longer be available for habitation because of demolition. That does not include the many thousands of units that will be demolished by the United States Housing Administration, because there such units as will be destroyed will be replaced by U. S. H. A. housing units.

I am not going to make any allowance for fire destruction, on the theory that conversion of nonhousing units into housing units will offset the number of units that are destroyed by fire; in other words, I am trying to arrive at the minimum possible estimate as to the needs of new housing units to be constructed in the next 10 years. That minimum is based on the assumption that we will maintain the same vacancy rate as at the present time; in other words, all we will be doing, if we create 325,000 units, will be making these units available and at the same time keeping the vacancy rate down to 2 percent or less than that, which means that the amount of choice avail-

able for these families will be relatively limited as compared to what it has been at other times.

Mr. ARNOLD. It doesn't mean the reconstruction of the 4,000,000 uninhabitable houses?

Dr. LUBIN. I am coming to those in just a moment.

If you build 325,000 units a year in the next 10 years, you will have in all probability a gradual decline in the standard of housing in this country; it won't be very marked, but there still will be a slight decline in the standard of housing available to the American people—because the 45,000 demolitions, in my opinion, will not take care of the houses becoming obsolescent each year. All you will be doing will be to take care of these 280,000 new families and replacing those houses taken out of circulation through demolition.

Bear in mind that each year more houses become obsolescent. You want to remember that more than half the houses of this country are over 25 years of age and one-fourth are over 50 years of age. The extent to which obsolescence affects those houses of course depends upon the way they have been built, the materials out of which they have been built, and their location. But on a 325,000 new unit basis, taking housing as a whole in the United States, we will be witnessing during the next 10 years, if we don't do better than that, a gradual decline in the standard of housing that is available to our people.

I said a minute ago that we estimate a minimum of 4,000,000 substandard houses in the United States, and among those 4,000,000—I should say dwelling units rather than houses—are included only those that are in need of major repairs or those that are unfit for human habitation.

If you assume that you want to get rid of those houses and make other dwellings available for our population, over, say, a 20-year period; in other words, if you assume that you are going to replace those houses on a 5-percent basis (you are not replacing houses that are going to become substandard in the next 10 years, you are only going to replace those houses that are already substandard) you are going to take 20 years to do it, which means a 5-percent replacement of existing substandard houses. If you did it on a 20-year basis you would have to replace 200,000 of those units each year. You add those 200,000 units—and certainly that is a conservative estimate—to your 325,000 that you have got to have to maintain housing for your new families and for those houses which are destroyed through demolition—and you get a minimum requirement of 525,000 units per year for the next 10 years. With 525,000 additional units for the next 10 years, there will hardly be any increase in the standards of the American people in terms of their housing.

Compare that situation, namely a minimum requirement of 525,000, just about to hold your own for the next 10 years, with the situation that prevailed in the twenties. As I said earlier, between '20 and '29 we built 700,000 new nonfarm units every year. During the last 9 years we have built only an average of 190,000 units a year, and as I said previously, in a single year, 1925, we built as many as 937,000 new units.

Last year we produced 345,000 units. We estimate something around 400,000 to 450,000 for this year, of which 50,000, something between 30,000 and 60,000, will be United States Housing Administration units, which in many instances will only replace other units

that they are going to destroy. So that even if 1939 turns out to be as good as we expect it to be or hope it to be, I may say as good as the most optimistic people expect it to be, and we build 400,000 units through private investment, there still will be a shortage of 125,000 units if we are going to hold our own. In other words, we will be shy 125,000 units that will have to be produced if we are to stay at a level equal to what prevails right now in the United States in terms of general housing standards.

It is quite evident from figures that have been submitted thus far that if we are going to build these 525,000 units, at least half of them must be built at a price of something less than \$4,000 if they are to become available to that portion of the income receivers who need housing. As I stated a minute ago, approximately half our families cannot afford to live in properties that cost more than \$4,000. Therefore, I have made some estimates of what these 125,000 additional units that should be produced next year, if we are merely to hold our own, would mean in employment if we did produce them.

If we did reach that level, which is 125,000 units more than we figured we were going actually to build, what would it mean to workers, what would it mean to industry, what would it mean to the economy as a whole? We estimate that 100,000 single-family dwellings that cost \$3,000 to produce will give jobs to 82,000 men for a whole year on the site, that is a full-time job for 40 weeks at 40 hours a week, which is more weeks than most building workers ever work in a year.

In producing these 100,000 units at \$3,000 apiece, the lumber industry will be called upon to furnish three-quarters of a billion board feet of lumber; the brick industry will be called upon to furnish approximately 800,000,000 bricks; the cement industry will be called upon to furnish about 3,000,000 barrels of cement; the steel industry will be called upon to produce about a quarter of a million tons of steel; the paint industry will be called upon to produce about 3,000,000 gallons of paint. These are just a few of the major items that go into building.

To produce the brick and the lumber and the cement and the steel and the paint and the other things that go into building these houses which will be sold for \$3,000, will create employment for 122,000 more men for a full year, meaning that on this basis of 100,000 additional dwelling units costing \$3,000 to produce, the net increase in employment will be equal to 204,000 man-years, which means full-time employment for 204,000 people.

As a matter of fact, the building year for the building-crafts worker is a lot less than 40 weeks, but assuming now that we could give him 40 weeks of employment and so have the industry organized that we could keep him steadily employed for 40 weeks in the year, to produce 100,000 units to sell at \$3,000 each would create employment for over 200,000 people for a 40-week year.

If we filled this void, in other words if we could reach 525,000 units, which we have to reach if we are going to maintain housing on our present levels, if there is to be no further deterioration in our housing standards, we could, if we could find some way of getting those extra 125,000 houses produced during the coming year to sell at \$3,000, create jobs for more than 250,000 men for a 40-week year; in other words, they would have 40 weeks of steady employment at 40 hours per week, which of course in terms of the effect

upon industry itself and upon employment in other industries is terribly significant. In other words, there are jobs waiting, in a sense, for over 250,000 people right now, and these jobs will be created if we just do the minimum that we have to do in housing to keep our housing standards from deteriorating during the next year, and if we can do that for each year thereafter for the next decade at least.

Acting Chairman REECE. These charts which you have displayed this morning indicate a demand for houses, and the charts which you displayed in the previous study indicated ample capital available with which to construct them,¹ and at other times in the study, and as is generally known, there are ample building craftsmen without work and ready to be employed. It would seem interesting to me as to why construction is not under way through the employment of these various factors.

Dr. LUBIN. Mr. Chairman, I think Mr. O'Connell can probably answer that question better than I. In other words, the purpose of these hearings, as I understand it, is to find out, in view of the fact that we are needing these houses, in view of the fact that investment capital is available, why we aren't having them. Apparently there are dozens of factors in the picture that Mr. O'Connell is going to attempt to bring forth for the record.

Mr. O'CONNELL. I hope to. I might say that Dr. Lubin's testimony was not intended to indicate explicitly any particular answer to the problem, but rather to indicate what I believe he has, and that is a need for an expansion in the construction industry in the residential housing field. I think from his testimony and from some of the charts that he has indicated the inference might be drawn that under present conditions in the industry, with particular reference to the prices and various factors that go to make up the cost of a house, the cost of owning or renting a house, the industry is not so geared, the prices in the industry are not such as to make it possible for persons in at least the middle third of our income group—by that I mean people who make between \$1,000 and \$2,000 a year—to either buy or rent adequate dwelling accommodations.

The inference that I took from one of the charts which Dr. Lubin discussed was that the need is there in terms of a desire, an unsatisfied demand on the part of persons to own or rent dwelling accommodations which are not now available to them because of the price of adequate dwelling accommodations, and my thought is that over the course of this hearing we will develop, with that in mind, the different things which, in the various factors that go into the cost of a house, have brought about conditions which made it impossible for the persons in the lower-income groups to acquire or to rent adequate dwelling accommodations. I think the emphasis throughout the hearing will be substantially in the price of the various factors that go into the cost of a house. Dr. Lubin had not intended to indicate directly what he thought was the solution of the problem created by the need he indicated this morning.

Acting Chairman REECE. I shall patiently await further developments.

Mr. ARNOLD. Again, I notice a lot of people can afford houses at \$2,000. I assume that means total cost, including land. What are the chances of buying a house and lot in most cities for \$2,000?

¹ See Hearings, Part IX.

Mr. O'CONNELL. I might say as far as your committee can tell, there is very little chance.

Mr. ARNOLD. Of course the other part of the chart which still bothers me is the houses city families can afford, and when you tell me that the family of \$1,000 income can afford to buy a \$2,000 house, and at the same time tell me that they can't break even on less than \$1,750, you must mean that you could sell them that house and they would go without an automobile or without a doctor's bill or something like that. They can afford it only in that sense.

Dr. LUBIN. Afford it only in this sense, that a man with an income of \$1,500, if he lives within his means, can afford to spend so many dollars per year for rent.

Mr. ARNOLD. That would mean he mustn't go to the movies, he mustn't buy one of these second-hand cars which are keeping new cars flowing on the market—

Dr. LUBIN (interposing). He might. All we can say is this: Here is a pattern of American living. A family that breaks even, we will say at \$1,700, spends its money in such a way, and they may have a car and may not. They do go to the movies. Of that total income, approximately twenty-odd percent goes to rent. If you get down into a low-income group, the fact is that right now he is paying 50, 60, 70, or 100 percent of his total income for rent, and granted that if a man with a \$1,500 income bought a house for \$2,000, and say his total cost of maintaining that house was \$200 a year, that is about \$16 a month rent, isn't it?—on that basis he certainly, of course, to break even, will have to forego a lot of the things you mentioned. There is no doubt about it.

Mr. ARNOLD. But you are pointing out he would have less expenditure for rent than he has now if he did buy a \$2,000 house under these ideal conditions.

Dr. LUBIN. Definitely. His rental cost would be down.

Mr. ARNOLD. In that sense it is not very contradictory. It does assume, however, a \$2,000 house, and it does assume ideal conditions of financing.

Dr. LUBIN. Yes.

Mr. O'CONNELL. Are you through, Doctor?

Mr. BLAISDELL. Dr. Lubin, if I followed your testimony correctly, you are indicating furthermore that if we could solve this problem of relationship so as to enable houses to be built, we are also solving in part the problem of the income to buy those houses or rent them.

Dr. LUBIN. Yes. In other words, the mere creation of 250,000 or more full-time jobs in itself will create income for other people to rent houses who couldn't afford to rent them in that category at the present time.

Mr. O'CONNELL. I had several questions that I thought you would be in a position to answer in view of your knowledge of the subject, though they don't relate particularly to the charts which you have been discussing this morning. If there are any of these questions that you would prefer not to answer, if you haven't the information available, just skip them.

Thinking in terms of the building-trades workers and persons who are engaged in the construction industry generally, have you any information as to what the average hourly earnings are of the various

persons involved in the building industry on a relative basis, or absolutely?

Dr. LUBIN. We have. In the Bureau of Labor Statistics more than 10,000 building contractors report to us each month on actual employment and actual pay rolls and the number of hours these men worked, so that we have a pretty good sample of just how many people are working in the building industry and what they are actually getting.

The last figure that I have is for the month of May, that is last month, and the average actually earned per hour for these building workers, and that includes skilled and unskilled, the average for all of them combined, was 95 cents an hour.

Mr. O'CONNELL. That is all persons engaged——

Dr. LUBIN (interposing). Actually at work on these various projects.

Mr. O'CONNELL. Have you any comparative figures as to how that would compare with prior periods?

Dr. LUBIN. Well, it is slightly higher than it was the year previously; I think about 4 cents an hour higher than in 1938—no, it is 4 cents higher than 1937. At that time it was a little over 90.5 cents.

Mr. O'CONNELL. Have you anything going further back? What about 1929?

Dr. LUBIN. I don't have any average hourly earnings of these workers for 1929. They are available; I could get them.¹

Mr. O'CONNELL. How would these average hourly earnings compare with other industries? Have you anything on that—such as the durable-goods industries?

Dr. LUBIN. If you take the durable goods industries, which are more or less comparable, the average hourly earnings last month for industry as a whole were 72.5 cents. That includes, of course, all workers in those industries, skilled and unskilled, men and women, large plants and small plants. They actually earned 72.5 cents in May 1939, as compared to about 95 cents for the building trades people.

Mr. O'CONNELL. And the 95 cents includes skilled, semiskilled and unskilled, so there would be quite a wide range between the extremes?

Dr. LUBIN. Correct.

Mr. O'CONNELL. Of course, in terms of full-time employment, on the basis of an average wage of 95 cents it would mean how much?

Dr. LUBIN. If these building tradesmen with jobs in May had full-time employment 50 weeks, 40 hours a week, 2,000 hours a year, it will give you about \$1,900, a little over. In other words, if they worked every day in the week, every week in the year, and only had 2 weeks off the whole year, which of course is unknown in the industry, they could only have earned \$1,900 on the average for all the workers in the industry.

Mr. O'CONNELL. Have you any information on what they actually earned?

Dr. LUBIN. We have very little information on actual earnings for recent years. As a matter of fact, the only information we have on actual earnings for building-trades people is for the State of Ohio. Those figures, however, only give the actual yearly earnings of every

¹ Subsequently submitted for the record, see appendix, p. 5588.

worker who was on the pay roll every one of the 12 months of the year, you see. It doesn't make provision for those people who only had 3 months' work or 5 months' or 6 months', and those figures only go back to the period of the twenties, and they have come through 1935, and I think the significant thing is that even in the twenties, when you had your building boom on, your construction workers in Ohio who were on the pay roll every month of the year, all 12 months of those years—it didn't mean they had 12 full months' work, but they had some work in each of those months—had average earnings of \$1,668 in 1929. That was the peak that they ever got.

Now, getting back to your former question as to how that compares with others, if you take that same basis of calculation, namely people who work in each of the months of the year, in 1929 in Ohio in the steel industry, there you have a better comparison than in the manufacturing industries as a whole, because you have no women employed, you have more varieties of skill. When you compare building trades with manufacturing you are comparing men who work on certain types of skilled work with other people, some of whom are women who do routine work, a lot of unskilled people who do just routine jobs of one sort or another, and I think the fairest comparison is to compare building-trades workers with people who require training to do their jobs, and adult males to do the job. If you compare the actual earnings during the boom period in 1929, the average was \$1,668 in construction, and in the steel works and rolling mills it was \$1,928. In other words, you had about \$260 more earned by the average steel worker than you had by the average construction worker.

If you compare it with all manufacturing in Ohio, the comparison was \$1,500 in all manufacturing, with \$1,668 in construction, but you want to remember that that \$1,500 includes women and also some unskilled and semiskilled people who are in these factories.

Mr. O'CONNELL. I hadn't intended going very much into detail in this, because this raises the whole question, I take it, of the per-hour wage versus the annual income of the persons who do get the hourly wage, which is in some cases quite high.

Dr. LUBIN. I might go back to the previous question you mentioned on the average hourly earnings. On July 1, 1938, which is the last date for which we have the rate for unskilled workers, the entrance rate for unskilled workers, the building trades in the country as a whole paid about 59 cents an hour for the unskilled worker in that industry. If you take 59 cents and multiply that by 2,000, it shows you, assuming 2,000 hours means 50 weeks of work, 40 hours a week, no days lost for rain, accident, or anything else, a man couldn't earn more than \$1,200 a year if he worked every day of the year, virtually; and you want to bear in mind that such studies as we have made in 1936, for example, show that more than 20 percent of the people in the building trades earn less than 50 cents an hour. More than 20 percent of the people in the building trades earn less than 50 cents an hour, and there are many, many people in the building trades even at the current wage rate, who, if they had full employment, couldn't earn more than \$1,200 a year, and we know they don't have full employment.

Mr. O'CONNELL. I think that is all.

Acting Chairman REECE. When the committee recesses it will recess until tomorrow morning at 10:30.

Mr. O'Connell, do you care to make a statement about what your procedure shall be at that time?

Mr. O'CONNELL. Tomorrow morning and tomorrow afternoon we expect to call several witnesses who will testify in detail as to the costs that enter into the construction of houses, both large-scale rental housing and individual one-family houses, whether built for investment or for sale. The witnesses that I expect to appear will be a Mr. Schnitman, from New York, who is the former chief statistician of F. W. Dodge Co.; Mr. Dawson, a builder from Chicago; and Mr. Davison, director of the Pierce Foundation, which has done a substantial amount of research in that field. I believe that tomorrow will be taken up with that type of background material, after which we will go into in more detail the particular items that go into both capital and annual costs in connection with housing.

Acting Chairman REECE. The committee will be in recess.

(Whereupon, at 12:55 p. m., a recess was taken until 10:30 a. m., Wednesday, June 28, 1939.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

WEDNESDAY, JUNE 28, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:40 a. m., pursuant to adjournment on Tuesday, June 27, 1939, in the Caucus Room, Senate Office Building, Representative B. Carroll Reece acting chairman.

Present: Representative Reece (presiding), Senator King, Representative Williams, Messrs. Henderson, Lubin, O'Connell, and Brackett.

Present also: Miss Grace W. Knott, Department of Commerce; Gordon Dean, Department of Justice; Lowell J. Chawner, Department of Commerce; Theodore J. Kreps, economic consultant to the Committee; Thomas C. Blaisdell, Jr., director of studies, Securities and Exchange Commission; Peter A. Stone, coordinator, construction studies for the Committee.

Acting Chairman REECE. The committee will please come to order. Are you ready to proceed, Mr. O'Connell?

Mr. O'CONNELL. I am. Mr. Chairman, I want to say a word or two before calling the witness. Yesterday Dr. Lubin gave the committee a general over-all picture of the construction industry and of the part played in it by residential housing. If any one thing stood out in his testimony it was, it seems to me, that at the present time, for whatever reason, the construction industry is doing practically no residential building in a price range that can be met by families having an income of less than \$2,000 a year.

When it is remembered that a majority of our families fall within this group, the significance of this calculation can be readily perceived. Today witnesses will be called who will develop somewhat in detail the elements of cost which enter into residential construction, and the importance of each, using individual homes or apartment houses which have actually been constructed to illustrate the points considered. The first witness this morning will be Robert L. Davison.

Acting Chairman REECE. Do you solemnly swear that the testimony you shall give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DAVISON. Yes.

TESTIMONY OF ROBERT L. DAVISON, DIRECTOR OF HOUSING RESEARCH, JOHN B. PIERCE FOUNDATION, NEW YORK CITY

FACTORS OF HOUSING COSTS AND NEED FOR LOWER COSTS

Mr. O'CONNELL. Will you give your name to the reporter?

Mr. DAVISON. My name is Robert L. Davison. I live on Long Island; my business address is 40 West Fortieth Street, New York City.

Mr. O'CONNELL. Mr. Davison, you are, as I understand it, the director of housing research of the John B. Pierce Foundation of New York?

Mr. DAVISON. Yes.

Mr. O'CONNELL. Would you tell us briefly what the John B. Pierce Foundation is and the type of work or research that it does?

Mr. DAVISON. The Pierce Foundation is an eleemosynary organization doing research in the fields of heating, ventilating, and house comfort for the benefit of humanity. They are doing work at New Haven in physiological and psychological effects of heating and ventilating; that particular research is under Dr. Winslow. My work is largely in New York City, concerned with new construction methods, new materials, and any economic and social studies which have bearing on new materials and construction methods.

Mr. O'CONNELL. I take it the economic studies to which you refer are broader than cover merely plumbing, heating, and electric?

Mr. DAVISON. Oh, yes; the income groups.

Mr. O'CONNELL. Just one more question along that line. How is the John B. Pierce Foundation financed?

Mr. DAVISON. A sum of money was left by Mr. John B. Pierce for research in the fields I mentioned.

Mr. O'CONNELL. Very good. Now before we start to discuss in detail the cost data which I understand you are going to present to the committee, referring generally to your economic studies, what, if anything, have your economic studies indicated as necessary for an expansion in activity of the field of residential housing?

Mr. DAVISON. Well, now, I will speak from the charts, if I may.

Mr. O'CONNELL. Very well.

Mr. DAVISON. As a result of Mr. Lubin's testimony yesterday we changed the dates that we had on this particular graph so as to make them the same dates that he gave on the charts he used yesterday; that accounts for the using of the red here instead of cross hatch, but we will submit for the record the cross hatch that will be in black and white.

Mr. O'CONNELL. Will you give us the title of the chart to which you are now referring?

Mr. DAVISON. That is "Summary of Annual Requirements for Non-Farm Dwellings in the United States (Exclusive of Shortages) for 1938 and 1939."

(The chart referred to was marked "Exhibit No. 847" and appears on p. 4977. The statistical data on which this chart is based are included in the appendix on p. 5479.)

Mr. DAVISON. These black bars, the part of the chart which consists of the black bars, were taken from the market survey made by the National Housing Committee. That particular survey had a group of outstanding authorities that went over the material and checked on it. For example, Dr. Lubin was on the committee, and Maurice Leven, of the Brookings Institution, and Richard Mayer, of American Radiator. We had quite a committee on that, so that the data, I think, are quite authoritative.

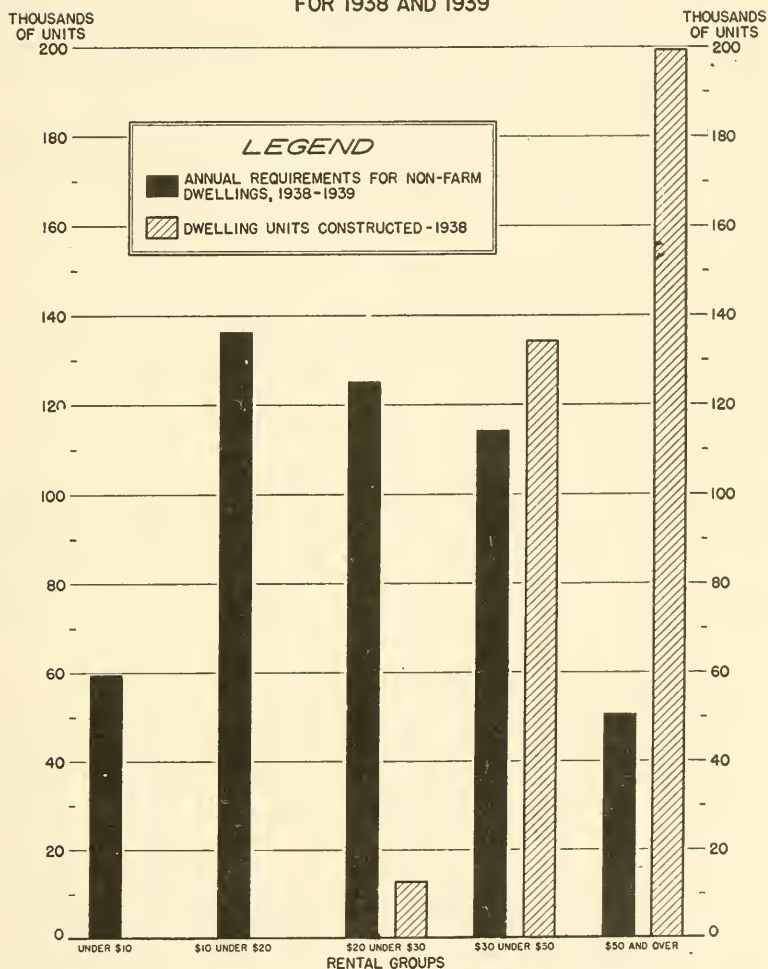
The cross-hatched bars are based on the F.H.A. percentages of loans that they were making for houses in various price classes.

Mr. O'CONNELL. For what year; 1938?

EXHIBIT No. 847

SUMMARY OF ANNUAL REQUIREMENTS FOR NON-FARM DWELLINGS IN THE UNITED STATES (EXCLUSIVE OF SHORTAGES)

FOR 1938 AND 1939



SOURCE: Annual requirements from "The Housing Market", published by the National Housing Committee, Washington, D.C., December, 1937.
Dwelling units constructed from Bureau of Labor Statistics estimates, distributed according to FHA loans in 1938.

Mr. DAVISON. 1938. Previously I had the data for the average, 1930 to 1937, but in order to have the same date that Dr. Lubin was using yesterday I made that change last night, using the other figure.

Before going into detail on the chart I had better explain the basis we are using in this. We are assuming in this housing market study that this is taken from that a man can pay 1 week's income for 1 month's rent, and that the carrying charge on a house is roughly 12 percent a year.

Now, in speaking of rent, we mean rent or rent equivalent if a house is bought. We don't differentiate, in giving these figures, between rental housing and houses which are bought. We are just taking the carrying charge and speaking of it as rent or rent equivalent.

Mr. O'CONNELL. You are assuming that 12 percent a year is necessary, whether the house is rented or owned?

Mr. DAVISON. Yes; that was the assumption in the report, and I think it is a correct assumption. In some cases it may be slightly under that, if it is an owner house, but not below 10 per cent, in my opinion, and for rental houses in many cases will have to be more than 12 percent a year.

Mr. O'CONNELL. In terms of annual income what would that mean in general, in your opinion, that a man could pay for a house in terms of his annual income? How many times?

Mr. DAVISON. In terms of annual income we are assuming in this housing market study, and I am throughout this entire discussion, throughout this testimony, that the man can pay twice his yearly income for his house.

Mr. O'CONNELL. In other words, that a man with an income of \$1,500 a year could afford to have a \$3,000 house?

Mr. DAVISON. Yes.

The rough rule of thumb which makes it easier to understand these charts is 1 week's income for 1 month's rent, and the cost of the house is 100 times the monthly rental or carrying charge at which you are buying. That figures out the same as this 12 percent, so whenever I speak of rentals under \$10, or rent between \$10 and \$20 a month, that would be a \$1,000 to \$2,000 house, and if it is \$10 a month rent that would be suitable for a man getting—

Mr. O'CONNELL (interposing). \$500 a year.

Mr. DAVISON. \$500 a year or \$10 a week.

Acting Chairman Reece. If I may, how do you estimate the various expenses that a man would have to bear who was making a salary of \$1,500 a year, but purchased a house at twice the amount of his salary, \$3,000 a year? As I understand you, it is estimated that 12 percent is necessary for maintenance, repair, and carrying the house along.

Mr. DAVISON. Yes.

Acting Chairman REECE. Then how do you estimate taxes and insurance? What I have in mind is, if a man buys a house, in addition to the payments, if he doesn't have it all paid for or if he has it all paid for, how much will he have to put out?

Mr. DAVISON. This 1 percent a month, or 12 percent a year, includes taxes and amortization. I will give you the exact figures on that. Interest at 5 percent, plus 20-year amortization at 3.2 percent plus taxes at 2 percent, plus maintenance at 1.6, plus special assessments at 0.7, plus insurance at 0.5, equals 12 percent a year. That is what we figured is the carrying charge on an owner occupied house,

and it would be about the same on a rental, though it might be a little bit higher on a rental house.

Mr. HENDERSON. Could you give the chairman some idea of what material, what statistics and experience you have taken into account, for the assumption you have made on various interest rates and the like? You have dealt pretty widely with all statistics that are available in making those computations, have you not?

Mr. DAVISON. Yes. Well, that is based on the collection of a good many estimates from a great many sources. For example, your Washington Sanitary Homes here in the Washington Sanitary Housing, that have been operating about 30 years; they are running, I think, about 1 percent a month of the cost, and there are a great many others. They run very close to that. Of course that is a rule of thumb. You may vary a little bit up or down, but I think you will have to have at least 1 percent a month to cover all the charges. Frequently it looks when you start as if it were going to be less than that, and then a special assessment, comes along, or something of that character, and I don't think it is safe to consider the cost of owning a home at very much under 1 percent a month.

Mr. O'CONNELL. At present rates.

Mr. DAVISON. Yes.

Acting Chairman REECE. The item that impressed me particularly from my own observations is the question of taxes and also insurance, because in some localities the tax burden upon real estate has become very burdensome.

Mr. DAVISON. That question of taxes is one that we can spend a whole day on. I have some graphs here that go into that thing. If any of the homes were to pay their share of taxes, their real share, their proportion of the taxes from the standpoint of service which they get, or lineal foot in relation to the cost of utilities, or any basis you want to set up, they would be very much higher than they are shown here.

Mr. O'CONNELL. I might say that I think Mr. Davison had in mind, too, that we are going to go more in detail in connection with such things as real-estate taxes later on.

Acting Chairman REECE. Very well.

Mr. DAVISON. But in taxes the small homeowner doesn't pay what he gets in services, so when you get into that subject it makes the situation very much worse than I am going to show here, so I think we can ignore that as far as I am concerned.

There is really a wonderful opportunity for the building industry if they will only switch from building high-priced homes into the low-priced field, and that is the thing that I particularly want to emphasize today in various ways.

These black bars illustrate the market in the various income groups, and the cross-hatched ones the building that is suitable for those income groups. We see here that for houses renting for \$10 a month that is suitable for a family with a \$10 a week income, there is practically no building; there is only one-tenth of 1 percent, according to the F. H. A. breakdown, that would be suitable for families getting under \$20 a week. Then when you come into the \$20 to \$30 group there is a very small amount of new building in comparison with the market for that rental group. In the \$30 to \$50 group the building in 1938 exceeded what we estimated to be the market in that par-

ticular group; probably it was largely around \$45 to \$50 rental, or the \$4,500 house up to \$5,000. Then here in the \$50 rental or rent equivalent class, and up, or the \$5,000-and-up house, there was overbuilding by about four times as much building as we estimated there was a market for.

Mr. O'CONNELL. The interesting thing to me in the chart, if I understand it correctly, is that the cross-hatched lines indicate that substantially no building is being done in the price range below \$3,000 in original cost, which converted in terms of annual income would mean available for persons having an income of \$1,500 a year or less. Is that correct?

Mr. DAVISON. There is very little.

There are several reasons why that is happening. In the past, the building industry has always catered to this \$50-and-up group, the \$5,000-and-up group. Going to this other chart—

Mr. O'CONNELL. What is the title of that chart?

Mr. DAVISON. "Distribution of Families by Income Groups and Distribution of Rental by Rent Groups."

Mr. O'CONNELL. Do you intend offering that chart for the record?

Mr. DAVISON. Yes.

Acting Chairman REECE. It may be received.

(The chart referred to was marked "Exhibit No. 848" and appears facing p. 4980.)

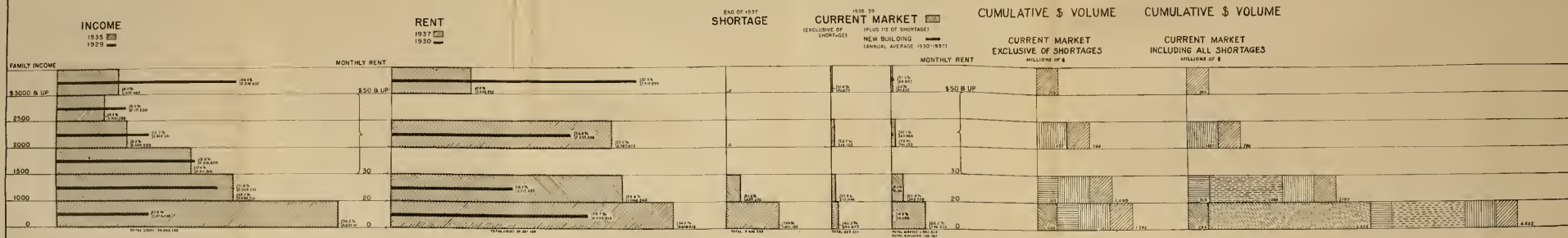
Mr. DAVISON. One reason—there are several reasons, but one reason the building industry has been building this high-price class is that in the past that was their real market. There are only a third as many people in this \$3,000-up class which buys the \$5,000-and-up houses as there were back in 1929, and there hasn't been much come-back in that class up to date. There are less than a third as many people paying \$50 a month rent and up as there were in 1930.

The building industry has been building for that class and they haven't yet worked out the techniques and gotten into the habit of building for this lower group. If they will get into this lower group I believe there is a very great market for them and I want to speak a little bit of the magnitude of that market.

In this graph here [indicating "Exhibit No. 848"] I have tried to relate on the same horizontal line all the factors that come from income. For example, here you have your \$3,000 a year income and you have your rental group on the same line, and then we come to this section, this third column in the graph—column headed "Shortage"—which shows where the shortages exist in housing.

Mr. O'CONNELL. I am afraid this type of presentation won't be very intelligent in the record because it won't be very possible in terms of a printed record to relate what you are saying to the particular lines on the chart to which you refer. The chart is rather complicated and I wonder if it wouldn't be possible without discussing the chart so much in detail, to explain generally the significance of the chart in terms that would be understandable to people that would read the record without having to read the chart. Could you do that?

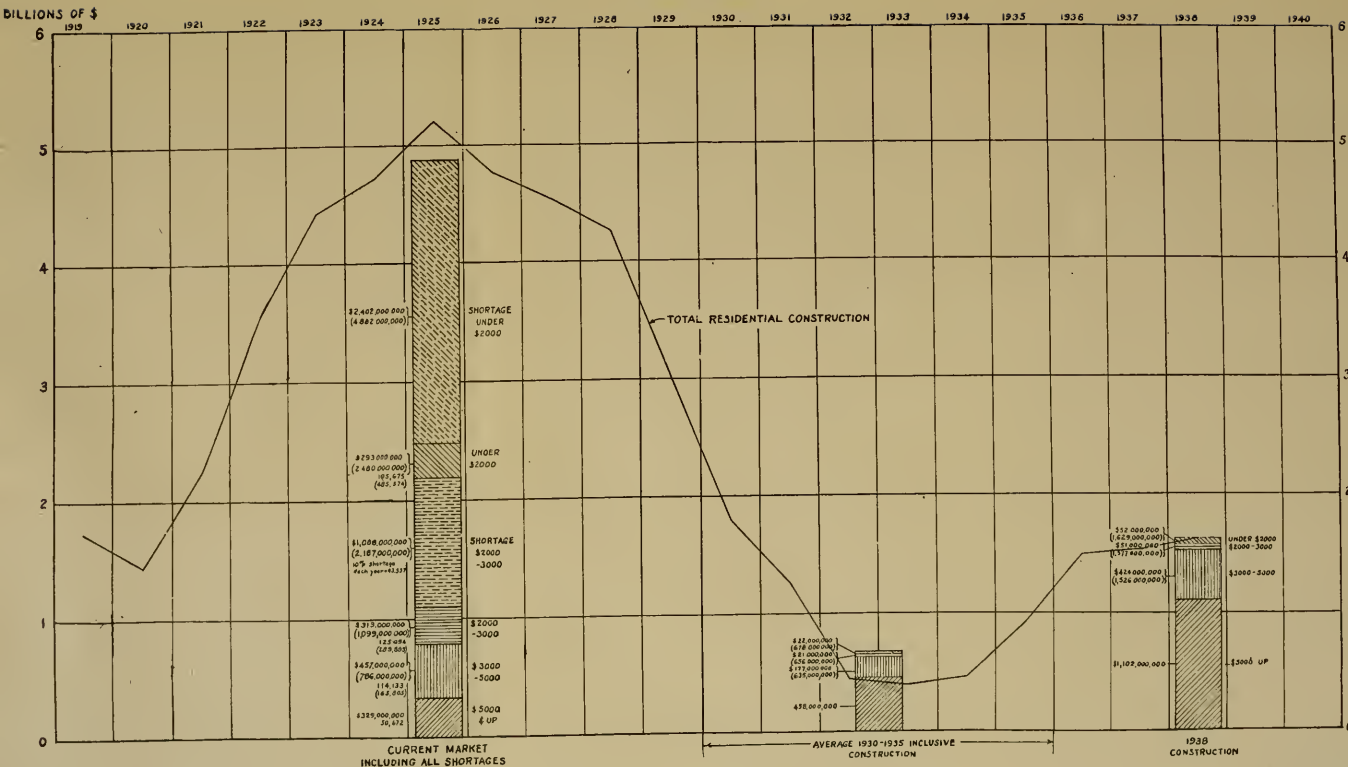
Mr. DAVISON. I shall be very glad to do that. I had this written out in a way that would have been intelligent in the record, but when I tried to give it verbally it is quite difficult to give it comprehensively. I will just speak of the significant factors in this and not try to go into it in detail.



* The income groups roughly indicate the limits of debt or rent allowance payable for various income groups.

ADJUSTED % OF ANNUAL INCOME (1 WITH 2 INCOME) - 1960	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	24
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The housing-market survey that I spoke of on which this is based showed there were no shortages for houses renting or rent equivalent of over \$30 a month in any of the census districts. There may be some local cases, local communities, where there is a shortage. There is, however, a current demand, differentiating between shortages and current demand, shortage having been built up over a period of years and current demand being the demand that comes along each year, and they estimated that in this \$50 class and up the current demand was 50,000 units a year, shown in this other graph by this black bar.

Without going into further details on this graph, I should like to show the significance of it when it is related to volume of construction that somebody might set up as an objective.

On this third chart here, which we might designate as price classes necessary for any determined volume of residential construction, the black line on this graph is taken from Bureau of Labor Statistics index of total dollar volume of residential construction over the period from 1919 up until 1938.

The bar chart here shows the dollar volume that might be obtained in various price classes. If you wanted to reach a dollar volume equal to the peak of the 1920 to 1929 period, you would have to supply all of the current demand in every price class, that is getting down into rent or rent equivalent of \$15 a month, and you would have to make up all shortages in all price classes in a year.

(The chart referred to was marked "Exhibit No. 849" and appears facing p. 4981.)

Mr. DAVISON. It is going to be very difficult with this reduction in the number of people having high incomes to reach the total dollar volume that you had back in 1925. Now if you approach it from another angle, if you wanted to reach a volume of 525,000 dwelling units a year, which was the figure given by Dr. Lubin yesterday, you would have to build—take care of the estimated market in the \$50 rental or rental equivalent class, and up; you would have to take care of the 30 to 50, the 20 to 30; you would have to take care of all current demand in the under \$20-a-month rent, that is under \$2,000 house, and you would have to in addition take care of 10 percent of the shortages in the \$20 to \$30 a month rent, or rent equivalent class; that is the two- to three-thousand-dollar house.

Now you can reach that volume of 525,000, but only in my opinion if the building industry will get into the low-price field. That was what I wanted to emphasize from these two charts, and I have neglected going into a good deal of detail on it.

Mr. O'CONNELL. Then, Mr. Davison, I take it this is just approaching it from a little different angle, but getting to the same result, as the material presented by Dr. Lubin yesterday,¹ to the general effect that such construction as we have at the present time is not geared to the market in the sense that it is not available at a price which can be met by people in the so-called middle-income groups, isn't that correct?

Mr. DAVISON. That is right. There is nothing contradictory between the two. The only point, as I was saying, further emphasizing, that they have to get into low-price class in order to get that volume of 525,000 a year, confirming and further emphasizing his view.

Now this graph showing the distribution of new construction in relation to distribution of families by income groups shows that the

¹ Supra, pp. 4935-4973.

new construction forms an inverted pyramid, with more than 50 percent of your construction for the top-income group; 50 percent of your construction for the income group that is about 8 percent of the population, and running down into the smallest amount of construction for the smallest-income group. Now as an indication that it might be possible to have new construction somewhat related to distribution of families by income groups, I have this chart also showing the distribution of families by income groups in England and Wales and the distribution of new construction in those two countries, which shows that actually in the highest-income group they didn't build as large proportion of new buildings as there were people in that highest-income group in relation to the whole number of families; and that the greatest proportion of their construction in England was for the lowest-income group.

(The chart referred to was marked "Exhibit No. 850" and appears on p. 4983.)

Mr. O'CONNELL. Mr. Davison, as of what year is that chart prepared for both the American and the English experience?

Mr. DAVISON. The United States, the income is 1935, and the new dwellings are the annual average for the years 1930 and 1937, 1930 to 1937, as from the market survey of the National Housing Committee. This other graph is one that I had made 2 years ago by an economist in England to show what was happening there; it was made for this particular study and then it was checked by Captain Reece, who is an outstanding authority in England on housing. He made some slight correction in the figures as prepared by this economist in London.

I can't say offhand exactly what the years were for England, but it was about the same period as covered by this other study.

Mr. O'CONNELL. Thank you. I think that is sufficient for those charts, unless you have some questions.

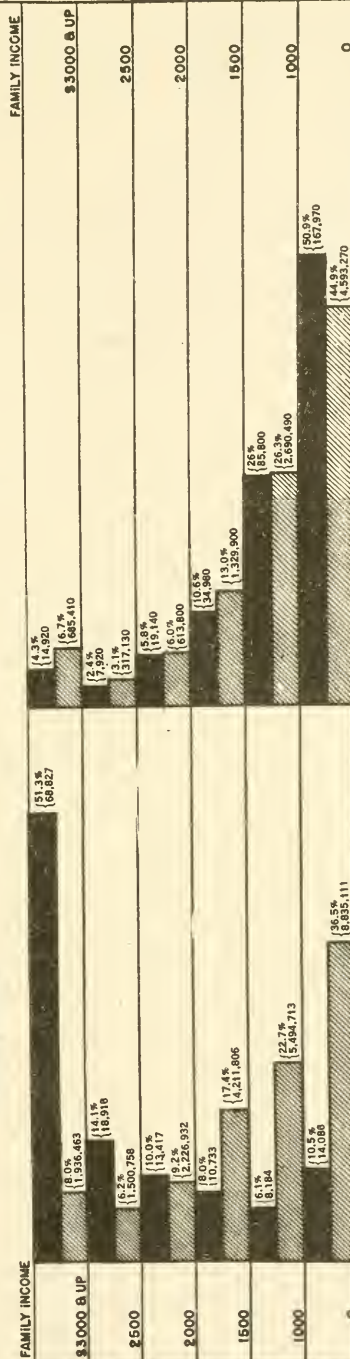
Mr. HENDERSON. Mr. Davison, let me see if I can recapture what your testimony and charts up to date seem to show. You have shown first that currently there is practically no building of new homes on a basis to reach the lowest-income groups, which constitutes by far the largest potential market; that there is for the \$50 rent or rent equivalent group what amounts to an oversupply of building, and that probably in your last two brackets is represented the kind of construction that is going on today in the United States (referring to "Exhibit No. 846").

Then going over to your other chart in which you have undertaken to estimate what is necessary for the United States to get back to the level of construction we had in the highest peak of the twenties, you show that unless this great market for the low-income group is tapped somehow, it is impossible to think in terms of getting that volume of construction of residential homes (referring to "Exhibit No. 849"); and then in your final chart you have shown that England's success in the construction field and the large stimulus to recovery which they got from housing, has come from their ability to bring demand for the low-income house into line with the cost of building the house (referring to "Exhibit No. 850"). Is that a fair summary?

Mr. DAVISON. That is, and I thank you very much for summarizing. I can write a thing clearly when I am dealing with statistics, and I did write it so it is quite clear, but when I try to talk it I am just lost.

ENGLAND & WALES

INCOME (1934-35)
NEW DWELLINGS



U. S. A.: The income groups roughly indicate the limits of rent or rent equivalent suitable for various income groups. Assuming 2% of annual income (1 week's income) = 1 month's rent also 1 month's income = 1% cost of dwelling (interest 5% + 20 year amortization 3.2% + taxes 2% + maintenance 1.6% + special assessments .7% + insurance .5% = 12% per year).

ENGLAND: It was assumed that those families receiving an income of under \$500 paid approximately 25% for rent; while those from \$500 to \$1,500 paid approximately 17%, and those over \$1,500 a decreasing percent went for rent. Details are given in the study by Mrs. Winifred Mary Stone with adjustments by Captain Richard L. Reiss.

U. S. DATA from "The Housing Market" (1937), National Housing Committee, Tower Building, Washington, D. C.

ENGLISH DATA prepared for the John B. Pierce Foundation by Mrs. Winifred Mary Stone of London, with minor adjustment by Captain Richard L. Reiss, Member of the Housing Committee, London County Council, to show relation between U. S. and English groups of comparable income level.

GRAPH prepared January 1938 by Robert L. Davison, Director of Housing Research, the John B. Pierce Foundation, 40 West 40 Street, New York City, U. S. A.

It is such an involved subject, it is almost impossible to make it clear, except as Mr. Henderson has done it.

Mr. HENDERSON. I suggest, since you know this thing so much better than we do, that you forget everything about those charts and that microphone and tell us what is on your mind when you come to the next part of your presentation.

Mr. DAVISON. Then I will do that.

Mr. CHAWNER. May I ask a question, Mr. Davison, particularly with regard to this relationship between income and current building operation, and the housing of people? Do you think for families, Mr. Davison, of incomes under \$1,500, that they could be more comfortably housed in perfectly new houses than in older houses with a little more space, but not necessarily new ones? That is, in other words, by building houses for lower-income classes can you house them as comfortably as has been true in the past by their occupancy of older houses?

Mr. DAVISON. Well, now, there is nothing in housing that you can give a straight answer to. It is terribly hard to talk about. For example, we show that a great many of our shortages are in the South and you are having a rapid increase in population in certain districts in the South due to mills moving down there and the opening up of textiles, and so forth, and in those sections you don't have the second-hand houses; and also on account of the time possible to build houses at low cost. In northern districts and districts where the factories may not be increasing so rapidly, why the second-hand house is the answer, but you can't give any one answer that will cover the country. It may be 50-50, I don't know; certainly, a very large percentage of the shortages are in the South.

Mr. CHAWNER. I have heard some criticism of the English program from that point of view; namely, that it has resulted in rather poorly built houses which in a few years with current depreciation will not be suitable even for occupancy of some of the lower-income families; that an attempt to provide new buildings directly in proportion to current incomes of families hasn't been entirely satisfactory.

Mr. DAVISON. I think it hasn't been entirely satisfactory, but I think we could make it very much more satisfactory than we have.

Mr. HENDERSON. Let me ask you, Mr. Davison, right in line with your last statement, are you optimistic or pessimistic about the ability of American's technical equipment, with its various reservoirs of capital funds, and its skilled labor, to construct adequate housing for the low-income groups?

Mr. DAVISON. Well, again I will have to answer that in two phases. I think that there is no problem particularly technically in getting into this group here.

Mr. O'CONNELL. What income group is that?

Mr. DAVISON. The 20- to 30-a-month rent or rent equivalent, the two-to-three-thousand-dollar house. I think we have the knowledge in this country—it may not be very general—but we have the knowledge at the present time and you can get into that. Houses are being built in that group right now. I have a record of quite a few houses that are being built throughout the country in that group. Now when you get down under \$2,000 you have again two answers to it.

Mr. O'CONNELL. Just a minute. When you speak of the \$20-to-\$30-a-month or the two- to-three-thousand-dollar house, that converted

into annual income, using your formula, the value of the house being twice the income would mean an income group of between one thousand and fifteen hundred dollars a year, so I take it it is your belief that it is entirely reasonable to expect that with the means at our command we can reach an income group of between one thousand and fifteen hundred dollars a year?

Mr. DAVISON. Yes; that is largely—it isn't technical so much as it is a matter of psychology, you might say.

Mr. O'CONNELL. Isn't it to some extent a matter of cost reduction?

Mr. DAVISON. To some extent, but the cost reduction would come from changed psychology on the part of people all along the line.

Mr. O'CONNELL. Probably come from a variety of things?

Mr. DAVISON. It isn't so much lacking the technical things as psychology after this market survey was made. We had a meeting and Herb Nelson sent out letters to the realtors throughout the country and asked them what they were selling under \$3,000. Ninety percent said it couldn't be done and 10 percent said they were doing it, and making money. And some of those were in the North.

Mr. HENDERSON. That is Nelson of the Real Estate Boards?

Mr. DAVISON. National Association of Real Estate Boards. Now 10 percent of the men were making money doing it and the other 90 said it couldn't be done, and the technical facilities of the country were the same for both groups. It was largely a matter that some people had changed their habits of thought and were trying to get into low-price fields.

Of course there are some districts where you can't do it.

Mr. O'CONNELL. To the extent that prices are too high, or that they can be reduced, it is a more concrete thing to operate on than psychology.

Mr. DAVISON. Oh, you want to reduce prices, but it isn't always due to prices, and as an illustration of that I want to offer a graph of the automobile industry.

(The chart referred to was marked "Exhibit No. 851" and appears on p. 4986. The statistical data on which this chart is based are included in the appendix on p. 5480.)

Mr. DAVISON. Here is the curve showing the volume of private home building from 1922 to 1938 and this dotted line here shows the total volume of high-priced automobiles sold, and you will notice that the high-priced autos follow very much the same curve as housing, and since most of our housing was high-priced housing, you might say high-priced automobiles and high-priced housing had the same character throughout that entire period. But the automobile industry was one of the leaders in coming out of the depression, but that was due to the fact that they also made low-priced cars. You notice how different the volume of low-priced cars was from the volume of high-priced cars.

The costs of steel and rubber and everything in the high-priced cars are about the same, but they are making a different product in the low-priced field and they have a little different method of handling the thing, and I think that that is what you have to do in housing. The housing industry has to do the same as the automobile industry. They have got to have a lower-priced product. If the automobile industry hadn't a low-priced automobile they might be here today

trying to find out what was wrong with the automobile industry in that it wasn't following the curve of all the other industries.

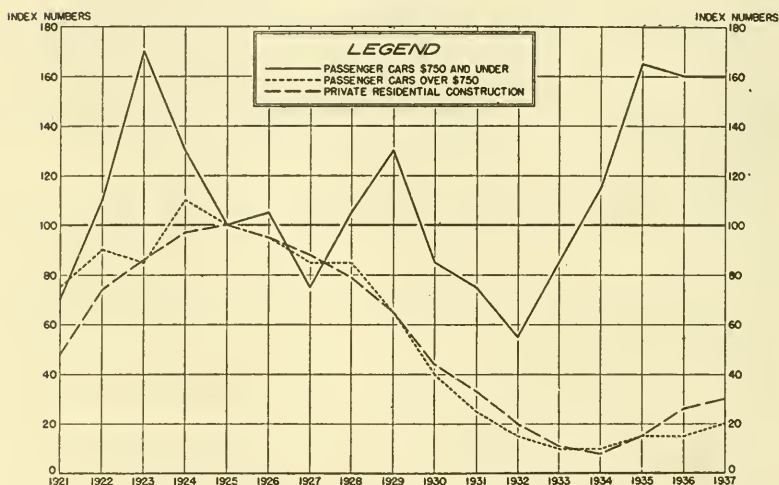
The trouble with housing is that they haven't got into this low-priced field.

Senator KING. Isn't there a great deal of difference in the cost of the construction of houses in the large centers and in the rural districts, For instance, I was reading last evening an instance which illustrates what may be done by persons who are willing to work. A man and his wife lived in the city, and owing to ill health they moved to Tennessee, or Kentucky, I have forgotten which, and acquired a few acres of land which was barren. They had \$50, and in 4 or 5 years they had constructed a house with their own efforts, very comfortable; they

EXHIBIT No. 851

PROPORTION OF NATIONAL INCOME SPENT FOR HOMES
AND AUTOMOBILES

UNITED STATES, 1921-1937



were making a living, they had a number of cows, a good many pigs, and all of the necessities and some of the comforts of life. They simply illustrated the genius and courage of some of the Americans.

Isn't it a fact that in many of the cities people are losing that initiative, and in the country, too, whereas if there be a revival of some of that fine spirit of the pioneers we would have no trouble about the housing problem particularly in the rural districts?

Mr. DAVISON. I think that is partly true. It certainly is true that you can build cheaper in the country than you can in the city, but the building industry is getting pretty technical and it is very difficult today for a man to go out with his ax and build his house, and uneconomical in most cases. But I will agree that it is a lot cheaper to build in the country.

The next point that you wanted—

Mr. O'CONNELL (interposing). I think you have probably taken enough time to this, which I hoped we would get over a little more

quickly than we have. I think we are through with the charts, and I would like to go into the detail of some of your experiences in connection with the cost of individual homes.

Mr. Davison, I take it that in connection with your research work with the Pierce Foundation you have made certain technical studies as to the cost of single-family homes for the purpose of determining, or with the result of having determined, the various elements that

EXHIBIT No. 852

	LONG ISLAND DEVELOPER			BIDS		NEW JERSEY DEVELOPER	
	4 rooms no base. 1936	4 rooms basement 1936	4 1/2 rooms basement 1938	5 rooms & garage no basement 1938		6 rooms, garage & basement 1938	
				L. I.	Newburgh	Basic	Deluxe
Excavation & grading	15.00	35.00	35.00	)	33.00	75.00	75.00
Foundation	70.00	175.00	225.00	)	185.00	379.00	477.00
Masonry	75.00	149.50	187.00	)	172.00	480.00	582.00
Lumber & millwork	478.38	493.38	490.00	700.00	870.00	200.00	400.00
Carpentry-labor & flashing	257.00	257.00	317.00	435.00	524.00	387.00	489.00
Lath & plaster	190.00	190.00	185.00	in carp. & lmr.	in carp. & lmr.		
Hardware	18.35	18.35	43.41	89.00	"	19.00	43.00
Painting	100.00	100.00	150.00	125.00	143.00	155.00	180.00
Linoleum	18.00	18.00	37.00	10.00	20.00	22.00	71.00
	1,221.73	1,436.23	1,669.41	1,544.00	1,762.00	1,717.00	2,327.00
Plumbing	235.00	235.00	160.00	200.00	210.00	310.00	490.00
Heating	125.00	75.00	70.00	100.00	172.00	212.00	277.00
Electric wiring	26.00	26.00	36.00	)	)	45.00	70.00
Electric fixtures	17.25	17.25	36.00	)	42.00	60.00	14.00
	1,624.98	1,789.48	1,971.41	1,886.00	2,204.00	2,298.00	3,189.00
Plans, surveys, permits, water & sewer	97.00	97.00	150.00	123.00	75.00	80.00	95.00
Misc: extra equip., overhead, insurance, etc.	131.00	131.00	134.75	133.00	185.00	227.00	477.00
	1,852.98	2,017.48	2,256.16	2,142.00	2,464.00	2,605.00	3,761.00
Land, streets, walks, landscape	227.30	244.40	456.00	450.00	300.00	764.00	831.00
Gross profit	419.72	638.12	737.84	408.00	236.00	621.00	1,408.00
Sales price	2,500.00	2,900.00	3,450.00	3,000.00	3,000.00	3,990.00	6,000.00

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went into the making up the cost of such single-family homes. Is that correct?

Mr. DAVISON. Yes; we have studied quite a few projects in the low-cost field in various parts of the country, and I have put on here just a few of the projects that are somewhat comparable.

(The chart referred to was marked "Exhibit No. 852" and appears on this page.)

Mr. DAVISON. In this first column we have a four-room house with no basement, built by a Long Island real estate developer. The

house was advertised to sell at \$2,500. Out of something over 200 houses they built, only 2 of them were sold at this price. It was really a come-on to get people out to this project, and then they would sell a little more expensive house.

There is a point of interest, I think, right there, in that by the addition of a basement and 3 feet more frontage to the property they were able to get \$400 more for the house, and it only cost the developer \$200 more to put that basement in and 3 feet more of lot and a couple of other things.

One of the problems in trying to get at low-cost housing is the fact that people, after you get the basic house, will pay about \$2 more for every dollar that is added in the way of luxuries, and the real-estate men know that. I don't blame them; I would do the same thing. If by taking a basic house and adding a dollar I could get \$2 more for it, I would be foolish if I didn't do it, but that is one of the things holding back the development in the low-cost field.

Mr. O'CONNELL. I take it that is one of the things about which we can hardly expect to do anything. If by making improvements in the so-called basic house at one cost they are able to sell it at a substantially higher price, that is just good business.

Mr. DAVISON. I think it is something that it would be possible to do something about. I don't know that this is the time to bring it up.

Mr. O'CONNELL. I don't think we ought to discuss now what should be done about it.

Mr. DAVISON. I understand that, but that is something that something can be done about, in my opinion.

The second column, I say, is the costs on the house which they sold for \$2,900, and most of the houses sold at that price.

Then, these were both for the year 1936. The third column is for the year 1938, and it is their basic house with a little projection in the front and a little projection in the rear and dolled up a little more, which sold for \$3,450, according to their figures. According to their figures, the gross profit on the \$2,500 house was \$419, on the \$2,900 house \$838; and on the \$3,450 house, according to their figures, their gross profit was \$737, and they are building quite a few of those houses.

Mr. O'CONNELL. Dividing the cost of this house up generally between labor and material and other costs referring to the \$3,450 house, I take it we have about \$1,650 for materials—no; it is not broken up as between labor and materials, is it?

Mr. DAVISON. No.

Mr. O'CONNELL. The labor and material cost would be about \$3,500—

Mr. DAVISON (interposing). That is another house you are referring to.

Mr. O'CONNELL. I am referring to the wrong house. Would you explain to us the general break-down as between the labor and material cost and the other costs that go to make up the total cost?

Mr. DAVISON. In general, the labor will be about 30 percent, material about 60, and the overhead and profit about 10 percent.

Mr. O'CONNELL. When you say materials are about 60, I have heard it said that the materials, strictly speaking, would only constitute about 35 percent, and that other nonlabor and material costs would go to make up the balance of 100.

Mr. DAVISON. That is on the basis of the cost, just taking the house without the land and without any financing charges. That is the cost of the house without the land and financing charges.

Acting Chairman REECE. I think it would be very interesting, Mr. O'Connell, on one of these types of houses to have the cost broken down so as to show the various items that make up the total cost of the house. I infer from your question that you expect to develop that.

Mr. O'CONNELL. I thought Mr. Davison might do that in connection with this house. We have two other witnesses coming on later today who will give us that information, both in regard to large-scale renting projects, in one case a practical builder who is going to give us the figures and proportions in a house he has actually built, and in the other case an analysis of a large-scale rental project actually under construction, so I should think that would be sufficient.

Mr. DAVISON. I could give you this graph on that break-down, if you wish it.

Mr. O'CONNELL. Let's come to that a little later.

Mr. DAVISON. These first three cases were four-room, one-story houses. These other cases here deal with a five-room and garage, and in some cases six-room and garage, two-story house. We got bids on Long Island on the National Homes Demonstration house, which I understand I am to talk about later, so I won't speak of it in detail now, and the total bids on that house, outside of land and gross profit, were \$2,142.

That was for a five-room and garage house, but without a basement.

Then, since it is cheaper to build on Long Island than in most parts of the country, we also took bids at Newburgh, N. Y., which might be considered as typical of the northern part of the country as a whole, and we got bids on the same house of \$2,464.

Mr. O'CONNELL. That is a difference of over \$300 in the bids in those two areas?

Mr. DAVISON. Yes. Long Island is a low-cost building area, and that incidentally is near a big city. The costs there would be very considerably cheaper than either in Jersey or Westchester, because they have the habit of building low-cost houses there. They know how to go about it. They have developed their technics for building low-cost houses.

Senator KING. Before you conclude, will you submit for the record a statement as to the relation, the proportion, of the cost for the land, with reference to the entire cost?

Mr. DAVISON. I can give you the cost of the land here, on these, and I believe they are going to have other witnesses.

Mr. O'CONNELL. You might give them the cost figures on the land you have in connection with this house.

Mr. DAVISON. In this house which they advertised for \$2,500 on Long Island the land, streets, walks, landscaping was \$227 for a lot, and on the \$2,900 house it was \$244. In their present house, which they are selling for \$3,450, the land, streets, walks, landscaping came to \$456, in relation to the \$3,450 house.

Mr. O'CONNELL. Referring specifically to the Long Island house, where the bids amounted to \$2,142 for the construction of the house, as I understand it the land item in connection with that house was

\$450, based on bids taken in Long Island, and the land cost in Newburgh is estimated at \$300.

Mr. DAVISON. Yes. There is a good deal of land, distressed property, that can be obtained in different parts of the country. You can buy small parcels of land for less than the cost of development; that is, a development that has gone sour, gone back to the original owner or mortgage holder, and you can buy that land for less than the costs of the developments that are on the land, and those sorts of things have to be taken into account if you are going to get into this low-cost housing field. You have to have some subsidies. Maybe they are not called subsidies; it is just the market price of the land.

Mr. O'CONNELL. This house that you referred to in Long Island and Newburgh, was that a demonstration house or a theoretical house?

Mr. DAVISON. We were planning to build some of those houses and we had the contracts drawn, and our attorneys told us it was not within our charter to build the houses, so we weren't able to go through on it.

Mr. O'CONNELL. When you say "we"—

Mr. DAVISON (interposing). The Pierce Foundation. And the bids on the Long Island and Newburgh houses were to the Pierce Foundation. We were going to try to prove the thing out, and at the last minute our attorneys said it was outside our charter.

Mr. O'CONNELL. I understood the Pierce Foundation had also done some work with the Small Homes Demonstration Committee.

Mr. DAVISON. I was chairman of their technical committee.

Mr. O'CONNELL. What is the Small Homes Demonstration Committee? What is it connected with?

Mr. DAVISON. The National Small Homes Demonstration Committee is an organization that is backed by the United States Lumber Manufacturers Association, the National Lumber Retailers Association, but on the committee are representatives from various industries and from the Government. They have representatives of the American Radiator, Crane, Kohler, Johns-Manville, and so on, and in these technical meetings that we had we had representatives from the five Government housing agencies.

Mr. O'CONNELL. What was the purpose of the committee, to see what the possibilities were of producing a single-family house at a reduced cost?

Mr. DAVISON. They set as their objective to produce a four-room house that could be sold, including land, for \$2,500, excluding land for \$2,000; five rooms and garage for \$2,500 exclusive of land, or including land, \$3,000; and they were working on that problem to see what could be done in the way of standardization, and so forth, to reach that market, and this project I spoke of here was one of them. If they wanted it demonstrated that could be done. However, that has been done in some locations. I just received some information from the National Small Homes Demonstration that the first house that was built in the West was sold, a four-room house, for \$2,700, of which \$500 was for the land.

Mr. O'CONNELL. I take it, generally speaking, the committee has not been successful in developing a house that can be sold at that price.

Mr. DAVISON. It could be sold at that price in various locations if they would follow the plans and specifications, but there again they

frequently run into this problem of the developer wanting to doll it up a little in order to get a much higher price. Now, from the standpoint of the individual developer, that is the thing to do; from the standpoint of getting volume of housing going in this country that isn't so helpful. I don't blame anyone for that, it is just a condition that exists.

As a result of that study they made and the material they got out of it they are, I think, very materially stimulating lower cost construction; even though people don't do it at that price, they are getting down into the lower group.

Senator KING. Have you seen any of these houses that Mr. Strauss' organization is building or purporting to build? I understand \$4,000 or \$5,000 is the minimum.

Mr. DAVISON. Yes.

Senator KING. Your investigation, as I understand from your chart, shows you can build separate houses for \$2,000 or \$3,000.

Mr. DAVISON. Yes; you can build separate houses cheaper than you can apartment houses at the present time.

Senator KING. Are all of his apartment houses and not separate houses?

Mr. DAVISON. I believe that all of their work has been multifamily houses.

Mr. O'CONNELL. I might correct you a bit on that. My understanding is that while the major part of the activities of the U. S. H. A. have been large-scale apartment buildings, in some localities, adjacent to or in the smaller communities, they have been engaged or are presently engaged in building single-family individual houses. I hadn't thought that we could go into costs of U. S. H. A. projects, although it may very well be before we are through that it would be advisable. I can't testify as to it.

Acting Chairman REECE. Since you have referred to that subject, I understand that one of the problems of the U. S. H. A. particularly in the smaller cities is to build houses that will rent within the reach of this low rent group to which you refer. I think the U. S. H. A. recognizes that problem and is trying to solve it in some way, but will probably have difficulty in doing so.

Mr. O'CONNELL. I think in general the tendency or the trend in U. S. H. A. construction has been downward from the time they started, that they generally were attempting to produce habitable dwelling accommodations for people of very low incomes.

Acting Chairman REECE. I think so.

Mr. O'CONNELL. And constantly decreasing the cost. I still say that I am not an expert on U. S. H. A. experience, but it is my general understanding that the trend in U. S. H. A. costs has been constantly downward.

Senator KING. They ought to be because they have been tremendously high, unwarrantedly high.

Mr. O'CONNELL. I merely know that they have gone down to some extent.

Senator KING. They are not going to meet the problem by the very high prices which they have been charging for them and the very great costs, much of which was the result of bureaucratic methods which have been involved.

Mr. O'CONNELL. We will put in the record later some of the experience that they have had.¹ We had hoped before the hearing was over that we would get some explicit information on the experience of the U. S. H. A. but neither Mr. Davison nor I intended to discuss it. We were trying to discuss private residential construction. We will forget the U. S. H. A. for the time being.

Mr. Davison, I take it that the aim and objective of the committee with which you are connected was to produce a four- or five-room house at a price that would make it available for people in the middle-income group and that to some slight extent and in some localities they have been able to demonstrate the possibilities of meeting that group, but that there have been a number of deterrents of various types, depending somewhat upon the location, which have prevented the committee from attaining the objective.

Mr. DAVISON. I don't think they have reached the price objective, but I think that by having that low price, the builders add on a little bit to it and the net result is that you get a larger volume of low-cost housing than you would otherwise have gotten.

Mr. O'CONNELL. Generally speaking, here again we have a situation in which this group at least is conversant with the necessity for building or making available adequate dwelling accommodations to meet the needs of people in the middle or lower income group, a thing which has not been adequately or at all taken care of up to this point. Is that correct?

Mr. DAVISON. That is right.

Mr. O'CONNELL. I think that is sufficient in connection with the cost of single-family houses.

There is really only one more question that I should like to discuss with you for a moment. Returning to the statistical material that you have given us, as to the capital cost of a house, of course it is also true, as you would agree with me, I am sure, that in terms of the monthly rent or the monthly or annual, so-called annual, cost—it is another way of looking at the cost of the house from the capital cost—it at least is important from the standpoint of the average home owner or renter; he is primarily interested in how much it costs him per month for dwelling accommodations, whether they be owned by him or rented by him. In connection with that, have you made any studies of the various elements that go to make up the monthly rent or rental equivalent and the effect of changes in those elements?

Mr. DAVISON. Yes; we have made a study on that. If you are considering this purely from the standpoint of the relative savings in monthly rent possible from a given percent reduction in each of three basic types of building costs—labor or material or financing costs—you get one set of results as illustrated by this graph which I should like to put in the record. It shows the reduction in the fixed monthly carrying charge that you get from a 20-percent reduction in materials, a 20-percent reduction in labor, and a 20-percent reduction in interest and amortization. The 20-percent reduction in materials would give you 9.33 reduction in monthly fixed charges.

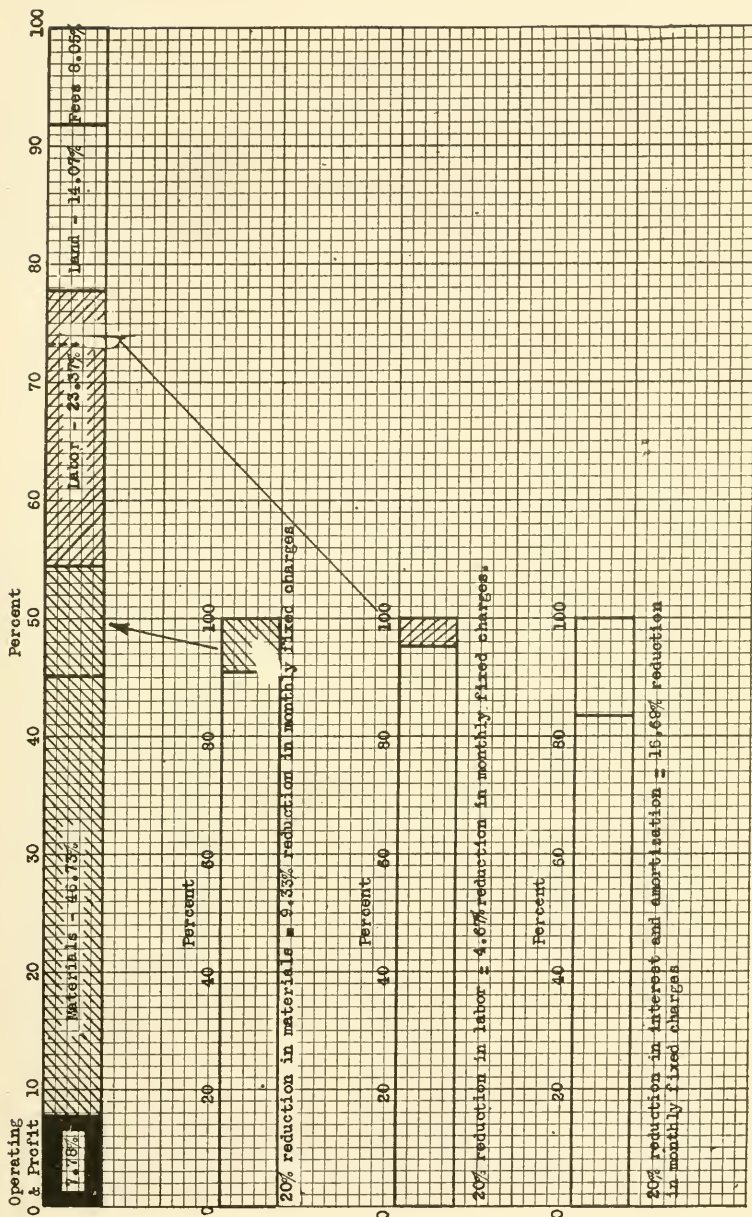
Mr. O'CONNELL. This is an individual home?

Mr. DAVISON. An individual home.

Mr. O'CONNELL. And a 20-percent reduction in material costs would result in a 9.33-percent reduction in the monthly fixed charges.

¹ *Infra*, pp. 5407-5431.

EXHIBIT No. 853



Mr. DAVISON. Yes. A 20-percent reduction in labor would give you 4.67-percent reduction in monthly fixed charges, and a 20-percent reduction in interest and amortization would give you 16.69-percent reduction in monthly fixed charges.

Mr. O'CONNELL. In other words, looking at it from the point of view of the man who has to determine the amount that he can afford to pay monthly for home ownership or rent, the effect of a 20-percent reduction in principal and interest payments would give more effect than a 20-percent reduction in the cost of labor and material combined. Is that correct? As I compute it, 20-percent reduction in both labor and material would result in a reduction of cost in terms of the rental dollar of about 14 percent, and the 20-percent reduction in principal and interest payments would result in 16.69 percent. Is that correct?

Mr. DAVISON. That is correct.

Mr. O'CONNELL. Has that chart any particular title to identify it?

Mr. DAVISON. I will give you the chart.

Mr. O'CONNELL. I take it this chart was prepared from actual cost figures and you believe it to be reliable?

Mr. DAVISON. Yes.

Mr. O'CONNELL. I should like to offer this particular chart.

Acting Chairman REECE. It may be admitted.

(The chart referred to was marked "Exhibit No. 853" and appears on p. 4993).

Mr. DAVISON. There is one caution I should like to make in connection with this question of the effect you get in reduction of financing costs; that is, interest and amortization as compared with reduction in construction cost. It is true, as I say, that you get a substantial effect in reducing your interest and amortization but if you have a house so expensive that even with this reduction the person can't live in the house, you are not going to solve this problem. I would like to give one concrete illustration. That is the Oakland Housing Corporation, a nonprofit organization in Pontiac; Mich. Senator Couzens gave \$550,000 outright, the Government made an outright grant of \$300,000 without interest, for houses which cost \$4,440, \$3,500 for the house and \$940 for the land. These houses sell on a 20-year payment period for \$2,590 including fire insurance, water maintenance, and taxes, so even at zero interest the mass market is not reached in a dwelling costing \$4,400. You can't do everything by lowering your interest rate.

By way of illustration, I should like to submit a chart which I have not yet completed which shows that a 25 percent reduction in the total original cost of the house would cut the annual cost, including taxes, maintenance, interest, and other charges, by 21.3 percent; while a 25 percent reduction in the interest rate alone would cut the annual charge by 9.1.¹

Mr. O'CONNELL. We shall be glad to receive the chart.¹ I don't believe that any of us think that we can do what we have in mind or hope can be done by any one particular thing. I was merely attempting to make available to the committee what the relative effect of decreasing one or another of the various elements that go in to make up the cost.

¹ Subsequently submitted and included in the appendix with supporting data on pp. 5592 and 5593.

Mr. DAVISON. When you spoke so strong for reduction of interest I didn't want to make it appear that I thought that alone could solve the problem.

As a matter of fact such an approach may be misleading. A reduction of say 20 percent in financing charges—both interest and amortization charges—will reduce monthly costs as stated but the sum total of the payments made over the entire period of the loan will be practically the same, since obviously interest has to be paid for a longer period of time.

Permit me to point out with emphasis that in my first chart I was taking one element at a time. I was comparing as alternatives what might be achieved either by reducing labor costs or by reducing material costs or by reducing monthly financing costs. I was not talking about reductions in total building costs.

As this chart shows, you get an entirely different picture if you lump labor and material and other construction costs together and compare the potential saving that might follow from a reduction in total construction costs with the potential saving from a reduction in interest only. Then, let me repeat, a reduction of a given percentage in the total original cost of the house has between two and three times as great an effect in lowering the annual cost of housing to the owner as a similar reduction in the interest rate. A 25 percent reduction in the original cost of the house would cut the annual cost, including taxes, maintenance, interest, and other charges, by 21.3 percent; while a 25 percent reduction in the interest rate would cut the annual charge by 9.1.

Mr. O'CONNELL. That is merely one of the things that would help to solve the problem.

Mr. DAVISON. Yes.

Mr. O'CONNELL. Thank you. I think that is all the questions I have of Mr. Davison.

Senator KING. Have you broken your figures down into what the labor costs involve? Suppose you have a brick house. Do you have the labor cost in the production of the brick, the labor cost in the production of the steel, glass, and whatever other articles went into the finished product?

Mr. DAVISON. No; we haven't that detailed break-down. We have some labor break-down which we got from the Purdue housing, which I think is the best labor break-down I have seen. We got that from the figures published by Purdue in regard to their housing, and if you wish that I will submit it.

Senator KING. I should be glad to have it.

Mr. DAVISON. I will submit that for the record.

Mr. O'CONNELL. What does it indicate?

Mr. DAVISON. This indicates that labor is 30 percent and materials 60 percent and overhead 10 percent in the cost of a \$4,430 house.

Senator KING. Would there be some labor costs in that 60 percent?

Mr. DAVISON. Yes; there are. This is labor on the job. Oh, yes, there are labor costs in that other. The American Construction Council made some very detailed figures. I think probably the Bureau of Labor Statistics has the best figures on that. You can get that from Dr. Lubin.

Senator KING. The amount that would be paid to labor, the digging of the foundation, and all of the work in connection with the construc-

tion of the building, plus labor cost in the production of the materials that went into the house, would constitute perhaps 75 to 80 or 90 percent, would it not, of the entire cost?

Mr. DAVISON. When you take financing and taxes and everything, you get into a very involved problem there as to just what are the costs, and what you are paying for it on part time; if you are paying for a house over a period of years on a monthly payment basis your labor costs may be a very small part of the total cost.

Mr. O'CONNELL. We have some other cost figures coming, but I don't believe we have any figures that would indicate any division as between labor and material except considering labor as labor employed on the project, which is what he refers to as 30 percent. Of course part of that 60 percent attributed to material obviously includes a substantial proportion of labor in the mines or factories or some other places. I don't know what part of the 60 percent would be attributable to labor; I think it would be pretty difficult to get.

Mr. CHAWNER. Mr. Henderson has given an excellent summary of this. It occurs to me that there is one aspect that may possibly be misleading, and I should like to ask a further question of the witness on that point. You have related family income to the cost of the house and have shown that for houses built at a lower price there would be a larger market, but you haven't indicated whether you think that desirable by making a house smaller or by actually reducing the cost and maintaining the quality. Do you think there would be any great gain in merely building a small and less-adequate house? That isn't the burden of your testimony, I take it.

Mr. DAVISON. Well, I didn't get into that phase of it, but there might be an advantage right today in building lower-cost houses. The Chamber of Commerce of Buffalo are working on a project now that they expect to rent for \$16 a month for a four-room house; that is \$4 a room, with tax exemption for 5 years, and the house there will have bedrooms that conform to the F. H. A. standards. They have a preliminary contract on that house of \$1,300 for a four-room house and I think that sort of thing is very desirable. Maybe it is a little too cheap but it is the right approach. What I wanted to do in this thing if possible was to focus the attention on the need of studying that low-priced field.

Dr. LUBIN. Is it necessary to assume that the only way you can get a lower cost house is by making it smaller or putting in cheaper materials? May it not be that by the use of our own ingenuity and large-scale methods of production we can build as good a house for \$3,000 as we are now paying \$4,000 for, if we apply our modern methods of production?

Mr. DAVISON. Oh, I am sure you could. That is what I would really like to talk about, but I understood I was to keep off that today and get another chance. I think there are just tremendous opportunities, and I am so glad you brought that up. All this stuff I have been talking about makes me tired. I am afraid it sounded like that. But the thing you have got to realize is that you have got to get into that low-cost field or you are not going to get any volume in construction. Once you realize that, you will go ahead and find some way of doing it.

Senator KING. If you go into the South, among certain so-called sharecrop tenants, can't you build houses there?

Mr. DAVISON. Yes; but they need maybe \$500 houses down there. Senator KING. Maybe.

Mr. DAVISON. This country hasn't even started to tackle this problem. They have just been fiddling with it.

Mr. O'CONNELL. I think Mr. Davison will be comforted somewhat by a realization that he is going to be called a little later in the hearing to give us something which in his mind at least will be much more constructive than the statistical material he has given us this morning.¹

Mr. HENDERSON. That was the main question I had: What is the Committee going to do to relieve that tired feeling?

Mr. O'CONNELL. We are going to give him a second chance.

Mr. HENDERSON. I gather what made him tired was to see this tremendous potential market and nothing being done about it. Am I correct in that?

Mr. DAVISON. Yes. I think one thing the committee could do—I am not supposed to say this now but I will say it anyway—is define low cost housing in terms of family income. When you speak of families with low incomes, do you mean the people below the top 50, or do you mean the people below the top 30, or what do you mean? Then the next step is houses suitable for those families. Can they afford to pay twice their yearly income or three times their yearly income, and if you get that along with where the market is, you have a problem laid out for you that is so hard of solution that you have got to do some work on it.

Acting Chairman REECE. We have enjoyed your testimony and are looking forward to that part about which you seem to enthuse.

Mr. DAVISON. It won't be as stupid as this testimony this morning. It is awfully hard to talk statistics.

Mr. O'CONNELL. With that in mind, we are going to have a few more statistics.

Mr. DAVISON. It is easy for a statistician or an economist to talk statistics, but it isn't for me.

Mr. O'CONNELL. At the risk of boring the committee (and I don't believe they were bored when Mr. Davison was talking) I want to call another witness who will give us some information about costs, a practical builder who is engaged in construction of single-family houses near a metropolitan area, and I would like to question him fairly briefly on what his costs and experience in his particular line are. I should like to call Mr. Allen H. Dawson.

Acting Chairman REECE. Do you solemnly swear this testimony you shall give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. DAWSON. I do.

TESTIMONY OF ALLEN DAWSON, SMITH & DAWSON (BUILDERS), CHICAGO, ILL.

COSTS OF A SINGLE FAMILY HOUSE NEAR CHICAGO

Mr. O'CONNELL. I might say, Mr. Chairman, that Mr. Dawson is a member of the firm of Smith & Dawson, and we subpoenaed Mr. Dawson to have him give us some information about his experience in the housing field, the construction field, and Mr. Smith is with him;

¹ For further testimony of Mr. Davison see *infra*. pp. 5317-5340.

we had not intended that Mr. Smith would testify, but if it is agreeable I would ask a few questions of Mr. Dawson and if he feels himself unable to answer he can call Mr. Smith. If that is necessary we can then swear Mr. Smith. I hope it won't be necessary.

Mr. Dawson, for the purpose of the record will you please state your name and address?

Mr. DAWSON. My name is Allen H. Dawson, and I live in Glenview, Ill.

Mr. O'CONNELL. And your business—

Mr. DAWSON. And I am a partner in the firm of Smith and Dawson. We are developers and builders of homes.

Mr. O'CONNELL. You are builders and developers of real estate properties?

Mr. DAWSON. Yes.

Mr. O'CONNELL. How long have you been in this business?

Mr. DAWSON. Why, we originally went into the business about 1926 and we were more then in the selling of the vacant land up until about 5 or 6 years ago; we didn't do an awful lot in the construction end of it, and when it became so difficult we couldn't sell the land we started building homes.

Mr. O'CONNELL. Prior to 1928 had you had practical experience in the construction business?

Mr. DAWSON. No; I didn't have any experience before that time.

Mr. O'CONNELL. Since you have been in business I take it that you have developed a number of subdivisions, so to speak?

Mr. DAWSON. Yes; we have developed approximately 1,500 acres of land and we sell—we formerly sold anywhere from 2 to 5 acres of ground and now we sell about an acre of land with each house, and we find that that is plenty of land for the average home owner to buy.

Mr. O'CONNELL. Speaking at the present time, do you only sell improved lots, that is improved by construction of homes, or do you also sell subdivided land unimproved?

Mr. DAWSON. We sell both and if we weren't able to sell the land and make a profit on the land in addition to what we are making on each house sale, why I don't think we could stay in business. It takes that additional profit of the additional land sales to make it work out for us.

Mr. O'CONNELL. Have you any particular development under way at the present time?

Mr. DAWSON. Yes; we have one development located north of Chicago; it is about 22 miles from the center of Chicago and that comprises about 360 acres of land. We started that approximately 3 years ago; the first year or so we didn't do an awful lot with it until we were able to get F. H. A. loans, and we were able to do that and have now between 140 and 150 homes there.

Mr. O'CONNELL. When you say you started about 3 years ago you mean you bought the land about that time?

Mr. DAWSON. We bought the land and cut it up in acre tracts and subdivided it in that form.

Mr. O'CONNELL. You say this is about 20 or 25 miles outside of Chicago? Within the corporate limits of any town?

Mr. DAWSON. No; it isn't; 2 miles north of Mount Prospect, which is a suburban town of Chicago.

Mr. O'CONNELL. What are the advantages, in your mind, of having your developments outside the corporate limits of Chicago, or of any other town?

Mr. DAWSON. Well, we find that most of the people we sell are very desirous of getting a large tract of ground where they have more or less elbow room. The tracts of ground run approximately 100 feet wide and 300 feet deep, and they use the back half of the acre of ground for gardening purposes and so on; and another thing is the tax rate is $3\frac{1}{2}$ percent of the assessed valuation, whereas in Chicago it is 9 or 9.8, almost 10 percent, so it makes the taxes much less.

Mr. O'CONNELL. So your taxes are cheaper and I suppose the original acquisition cost of the land would be cheaper?

Mr. DAWSON. Yes; and there are no improvements and of course they have just county tax and no village tax of any kind.

Mr. O'CONNELL. What do you do for services that a municipality usually would provide, such as water and other services?

Mr. DAWSON. We put in a drilled well with each house; each house has an automatic water system and nice well water and electric light, of course, is there, and the gas—just within the last 90 days the Public Service Co. ran the gas there; they saw the development growing so fast they thought they would hurry on and get the gas moved, so they have done that, all free of charge.

Mr. O'CONNELL. What about police, fire, protection?

Mr. DAWSON. The fire protection is from Mount Prospect, 2 miles away, and they have adequate protection; in fact, all our homes are of brick construction and they are located far enough apart so they really get a lower insurance rate.

Mr. O'CONNELL. About what was the cost—what was the acquisition cost of the land that you acquired there?

Mr. DAWSON. The first tract there we bought consisted of 120 acres of ground, costing, I would say, in the neighborhood of \$125 an acre and the next tract was 80 acres and the price went up on that to a little over \$200, where now we are paying approximately \$300 for the last 80 acres that we bought, last 120 acres.

Mr. O'CONNELL. So you now own 360 acres that you acquired at a cost ranging from \$125 an acre to about \$300 an acre?

Mr. DAWSON. That is right; we have options now on an additional 300 acres that we can get as we go along and as we need it.

Mr. O'CONNELL. What about improvements on your 360 acres such as grading roads and surveying cost, and so forth, have you any general information on that subject?

Mr. DAWSON. Just plats showing how we lay out the roads and out of a 40-acre tract of ground we get approximately 40 pieces in single acre tracts which would be a little less than an acre on account of the road which is taken off.

Mr. O'CONNELL. How many building lots would you get out of 360 acres?

Mr. DAWSON. About 40 building lots, I would say.

Mr. O'CONNELL. Out of 360 acres?

Mr. DAWSON. Oh, out of 360 acres; well, they run about an acre to a lot. When we originally bought the first tract there we had them in acre-and-a-half and of course we didn't get as many then; we get about one to an acre; we advertise approximately an acre of ground to each house, is what we are doing now.

Mr. O'CONNELL. What would you say was the average selling price of a plotted building lot?

Mr. DAWSON. Our average price I would say would be around \$700.

Senator KING. That is quite a profit from \$125 to \$700?

Mr. DAWSON. Well, that is on this last tract of ground which cost us \$300 or perhaps \$350 by the time we put in the roads. We figure that we are selling it really close when we are selling at a price, what we paid for it figuring the overhead and quite often we wait 5 years to get our money back on the land, if we sell it on a contract with a small down payment.

Senator KING. I suppose you include in that the cost of the roads, do you not? You furnish the roads, streets, and so on?

Mr. DAWSON. Yes.

Senator KING. So that would warrant you in charging a much larger price than the cost of the bare land?

Mr. DAWSON. Yes; that is right.

Mr. O'CONNELL. How many lots have you sold in this development?

Mr. DAWSON. In this Prospect Heights development I would say 225 or thereabouts, and we have now 135 homes on the development that are either finished or very nearly finished.

Mr. O'CONNELL. Have they all been sold?

Mr. DAWSON. All but the last; I believe we have nine unsold, but it looks to me we are going to be able to sell those very quickly, the way things are picking up for us.

Mr. O'CONNELL. What is the size of the average house that you are building in the development?

Mr. DAWSON. Well, the average size, the house itself is 28 feet by 23 feet, has a kitchen extending out another 5 by 8 feet, and practically all of our houses have an attached garage.

Mr. O'CONNELL. How many rooms in your houses?

Mr. DAWSON. They run four, five, and six; we have one plan there in a four-room finished home, where we put a stairway upstairs, leave the upstairs unfinished, to be finished by the purchaser, that sells for around \$5,000, or a little bit less. There seems to be quite a demand for that type of home.

Mr. O'CONNELL. What generally is the range of selling prices?

Mr. DAWSON. The houses, exclusive of the land, about the minimum price on that now will be \$3,300 or \$3,400, up to \$5,000 and \$5,500.

Mr. O'CONNELL. That would be exclusive of land?

Mr. DAWSON. That is right.

Mr. O'CONNELL. So it would be \$4,000 as a minimum, including land, I take it?

Mr. DAWSON. Yes; or a little more than that, perhaps.

Senator KING. Is that the cheapest house you sell, \$4,000?

Mr. DAWSON. Yes.

Mr. O'CONNELL. What income group would you say you sold to?

Mr. DAWSON. Well, I would say that 85 percent of the people we are selling have an income of \$2,000 or \$3,000 a year. I would say about \$40 a week would be about minimum. We might have a few in there that are a little bit lighter than that and we have quite a few that would run over \$3,000, some considerably higher than that.

Mr. O'CONNELL. Have you a statement of the cost of your houses, including the financing charges and other fees?

Mr. DAWSON. Yes; right here.

Senator KING. May I ask one question? Do you permit prospective purchasers to indicate the character of house that they would like you to build for them?

Mr. DAWSON. We do; yes.

Senator KING. So there isn't a horrible monotony, then, among your houses? That is, there are variations, depending upon the wishes and artistic tastes of your purchasers?

Mr. O'CONNELL. Have you usually sold the house before it is built?

Mr. DAWSON. Well, about half and half, I would say. We are building quite a few to order and we have about 15 under construction right now; and 9 of those are sold, and quite often they are sold when we start them, and sold before we get the roof on.

Mr. HENDERSON. Have you some pictures there?

Mr. DAWSON. Yes; I have.

Senator KING. The picture you have just exhibited is not a brick house?

Mr. DAWSON. That is a frame house; yes, sir.

Mr. O'CONNELL. You build both brick and frame?

Mr. DAWSON. We do, but most of our homes we build of brick; we feel it is more substantial, less upkeep, and the way we operate our business we find we can build a brick home almost as cheap as we can a frame home.

Senator KING. You have exhibited a photograph here which would indicate that there is a two-story house?

Mr. DAWSON. That has three rooms downstairs and two rooms upstairs, finished; that is a five-room finished house with an attached garage.

Senator KING. This exhibit?

Mr. DAWSON. That is our office building and we have just erected that last year. We have now a grocery-meat market there and beauty parlor and several apartments upstairs.

Senator KING. Beauty parlors and cinemas, I suppose?

Mr. DAWSON. Yes.

Mr. O'CONNELL. I have before me a break-down of the cost of the \$4,800 house, which I understand is a break-down of your actual cost in connection with that house?¹

Mr. DAWSON. Yes; it is.

Mr. O'CONNELL. It indicates that the selling cost of the house, including land, is \$4,800. And the selling cost of the house without land is \$4,100, and the cost of the house is \$3,750, indicating that \$350 profit on the house and that the selling price of the lot is \$700, and the cost of the lot is \$350, so that the combined profit on the \$4,800 house and lot is indicated at \$700. That is correct?

Mr. DAWSON. That is correct; that is pretty close to being an average deal.

Senator KING. I suppose you take a mortgage on the property?

Mr. DAWSON. The property we purchase, you mean? That is F. H. A. approved.

Mr. O'CONNELL. When you buy the property do you require any outside financing?

¹ Subsequently entered as "Exhibit No 854." See appendix, p. 5480.

Mr. DAWSON. No; we have been able to pay cash for the property when we buy it.

Mr. O'CONNELL. And do you require any bank or other financing in connection with your construction of houses, I mean before arrangements are made for their sale?

Mr. DAWSON. No; we use our own money in all cases.

Mr. O'CONNELL. So you are building for sale and you are in a position to finance your own operations up to the point of sale. In other words, you have your own, what you might call, working capital?

Mr. DAWSON. That is right. We don't pay any interest on anything.

Senator KING. You deal with each home owner separately, and he makes his loan through the F. H. A. separately?

Mr. DAWSON. That is right.

Senator KING. And gives the necessary mortgage to the bank if he gets the money from the bank, and the bank then secures a guaranty from the F. H. A.?

Mr. DAWSON. That is correct.

Mr. O'CONNELL. On this \$4,800 house, the financial statement of this house, on the second page of the exhibit Mr. Dawson has handed me, indicates that the purchaser would pay \$500 down, plus the loan expense of approximately \$175, and I take it—yes; it is broken down here that that \$175 item, which is in the nature of a finance cost, includes the insurance brokers' commission of \$107.50. What is that brokers' commission? Who is the broker?

Mr. DAWSON. That is a 2½-percent commission that is allowed to the broker who places the loan for the F. H. A., or the brokerage in the deal, and I believe our particular broker is selling the loan to an insurance company or R. F. C.

Mr. O'CONNELL. Then there is a middleman?

Mr. DAWSON. There is; yes.

Mr. O'CONNELL. And the financing agency?

Mr. DAWSON. That is correct; yes.

Mr. O'CONNELL. And that cost is borne by the prospective home owner?

Mr. DAWSON. That is borne by the purchaser, in addition to the 10 percent down on the house.

Mr. HENDERSON. Could the buyer, if he made his deal directly, save that \$107.50 commission? Is there any way he can deal directly with the bank and through them with the F. H. A. in order to save that commission, or is it the usual charge made in connection with the placing of a loan of this kind?

Mr. DAWSON. That is the usual charge made for the broker for recording the title and checking up on the handling.

Mr. O'CONNELL. The other items that go to make up the \$175 are one-quarter percent mortgage insurance premium. I take it that is on the F. H. A. mortgage insurance?

Mr. DAWSON. Yes.

Mr. O'CONNELL. And the first month mortgage insurance of 88 cents—what is the difference between those two items? What is the one-quarter percent mortgage insurance premium?

Mr. DAWSON. Well, that is the F. H. A. guaranty insurance where there is an advance of 13 months on that F. H. A. loan.

Mr. O'CONNELL. Then that is the same type of obligation as the next one, as the 88 cents, the additional monthly mortgage insurance premium?

Mr. DAWSON. That is right.

Mr. O'CONNELL. An abstract posting of \$10, abstract examination, \$4.98; application fee—is that an application fee to F. H. A.?

Mr. DAWSON. That is paid to F. H. A.; that is 3 percent of the amount of the loan F. H. A. required.

Mr. O'CONNELL. But the mortgagor doesn't apply to F. H. A., does he? Doesn't he apply to a bank?

Mr. DAWSON. The purchaser applies and signs the application for the insurance loan.

Mr. O'CONNELL. For the insurance the loan is through a banker or some other financing agency?

Mr. DAWSON. Through Percy Wilson.

Mr. O'CONNELL. So he is applying to F. H. A. for insurance on behalf of the bank?

Mr. DAWSON. Yes.

Mr. O'CONNELL. Which is placing the loan?

Mr. DAWSON. That is right.

Mr. O'CONNELL. I see. Construction interest, \$6.20, and taxes, \$3.50, makes a total of \$175, which I take it is in addition to the \$500 down payment. The purchaser, as a practical matter, has to have \$675 in cash in order to buy this house at \$4,800?

Mr. DAWSON. That is correct; yes, sir.

Mr. O'CONNELL. And the balance would be supplied by the insured mortgage at \$4,300, placed through a bank or other lending agency, insured by F. H. A.?

Mr. DAWSON. That is right.

Mr. O'CONNELL. There is one other item in here which is of some interest, and it relates to the monthly cost, the fixed charges that the mortgagor has to pay after he has arranged for the loan through the bank. Under the F. H. A. plan, with 5 percent interest and the one-quarter of 1 percent insurance premium, and covering fire and tornado insurance, and estimated taxes, the mortgagor would have to pay \$34.01 per month on a 20-year amortization basis for his mortgage. If the 20-year period were extended to 25 years without any change in interest payments or other obligations, the monthly payments would be reduced to \$30.78. Have you any break-down indicating the proportion of labor, material, and other costs that go to make up this total cost of \$37.50 for the cost of the house?

Mr. DAWSON. Yes; we have a break-down here, and I would like to have Mr. Smith tell you, as he is more familiar with that angle of the business.

Mr. O'CONNELL. Let us see the break-down. Oh, that is the break-down I have. I was interested in a break-down between labor and material. This doesn't—

Mr. DAWSON. That is a little hard, to break it down entirely, with labor, in view of the fact there are several things that have to be contracted out, and of course we don't know what their part of the labor would be.

Mr. O'CONNELL. Wall, I think the material in this chart speaks for itself. I had hoped you did have another chart which would indicate

the break-down between labor and material, but I think this is as much as we can do with this exhibit. I would like to offer this for the record.

Acting Chairman REECE. It may be admitted.

The document referred to was marked "Exhibit No. 854" and is included in the appendix on p. 5480.)

Mr. O'CONNELL. You referred to selling houses not complete in all respects, some rooms on the second floor might be left rough. Is that your usual practice, or does it vary?

Mr. DAWSON. Well, it varies. We find that four-room house there, where the owner can finish off the two upstairs rooms, seems to meet with quite a demand, and everybody feels quite favorable toward that type of home.

Mr. O'CONNELL. I take it you can also sell the house at a cheaper price?

Mr. DAWSON. That makes the difference, too.

Mr. O'CONNELL. Well, selling less than a complete house must be, to a large extent, in order to meet the financial capacity of the purchaser to pay. I wouldn't think that a purchaser would prefer to buy an unfinished house. It must be largely on account of his financial capacity to pay for a house. In other words, he buys as much house as he can pay for; isn't that what he does?

Mr. DAWSON. That is so, but a lot of the purchasers we sell would like to finish off two bedrooms or part of their house and do it in the evenings, and really enjoy completing their own home.

Senator KING. I suggest that perhaps many of those houses are purchased by newly married couples, and they anticipate in a few years they will need more room and prefer to wait to finish the upper rooms themselves.

Mr. O'CONNELL. I should think they might buy a six-room house instead of five.

Dr. LUBIN. May I ask the question of the witness that Mr. O'Connell asked, if at the same price you had given the two rooms upstairs finished rather than unfinished, could you sell more houses? You can give them a finished house at the same price you can give them with the upstairs unfinished?

Mr. DAWSON. I would say you would; yes.

Mr. O'CONNELL. That relates to the question of price. The number of houses you sell is related to the income of the persons who are your potential market to the extent that you can sell a house cheaper; you tap a demand you otherwise wouldn't reach, and it seems to me that is the explanation of the fact that you sell unfinished houses.

Mr. DAWSON. It is.

Mr. O'CONNELL. You are reaching a group that could not buy the finished house?

Mr. DAWSON. That is right.

Mr. O'CONNELL. In your construction do you employ a general contractor or do your own construction?

Mr. DAWSON. We do our own construction. My partner, Mr. Smith, handles the supervision of the construction end of the business, and he is out there on the job all the time.

Mr. O'CONNELL. Do you subcontract some of the work?

Mr. DAWSON. We do; yes. We sublet some of it.

Mr. O'CONNELL. And you are substantially in the position of a general contractor yourself, in the sense that you perform the function they ordinarily would, and you, as they would, employ subcontractors to do certain specialized portions of the work.

Mr. DAWSON. That's right.

Mr. O'CONNELL. You probably dig your own foundations and use subcontractors for the mechanical end.

Mr. DAWSON. That's right—heating, plumbing, lighting.

Mr. O'CONNELL. In selling your houses, do you employ salesmen?

Mr. DAWSON. No; we do all our selling ourselves. We feel that is one reason why we have been successful in the business we are in. We don't have any salesmen, and we both work 7 days a week at it. We are out there on Sundays and also during the week. In that way we eliminate the sales expense.

Mr. O'CONNELL. Generally speaking, your houses would sell to people in an income bracket of \$2,500 a year and up? You might get a little below that with your very cheapest or unfinished houses.

Mr. DAWSON. That would be about right.

Mr. O'CONNELL. Do you employ union labor?

Mr. DAWSON. Yes; we do.

Mr. O'CONNELL. And your sales are invariably, as I take it, accompanied by F. H. A. insurance? Have you made any sales of houses that were not financed under the F. H. A. insurance plan in the last 2 years?

Mr. DAWSON. Maybe one or two cash sales.

Mr. O'CONNELL. Where financing is required on the part of the purchaser, have you made any sales that do not involve F. H. A.?

Mr. DAWSON. No; we haven't.

Mr. O'CONNELL. Then I take it you probably didn't do much business in terms of construction or selling of houses before F. H. A. Is that right?

Mr. DAWSON. Before F. H. A. we built 14 homes, the year before we were able to get F. H. A. It took us considerable time trying to get F. H. A. to approve our property, inasmuch as it was 2 miles outside of the corporate limits of a town. We did have a form of financing there where they could get, perhaps, 50-percent loans.

Mr. O'CONNELL. Through F. H. A.?

Mr. DAWSON. No; through individual mortgage companies, 50 percent, and then we would try to get 20 percent down and carry a second mortgage behind that. We couldn't do much, because we didn't have the capital. Then, if we discounted the second mortgages, we were back to where we started. It was very difficult to make the business operate and go anywhere.

Mr. O'CONNELL. And how many houses have you built since F. H. A.?

Mr. DAWSON. I would say there are 125 that we have put through F. H. A. loans in the last about 2 years' time.

Mr. O'CONNELL. Do you have any difficulty in finding lending institutions to take mortgages on your property insured by F. H. A.?

Mr. DAWSON. No; we find a ready market of several brokers that are very willing to handle F. H. A. loans.

Mr. O'CONNELL. Do you happen to know whether the interest rate is uniformly 5 percent on the mortgages?

Mr. DAWSON. I believe it is, although in very select cases around Chicago, a good location, there are banks that are loaning at 4.5 percent.

Mr. O'CONNELL. I mean in connection with your development.

Mr. DAWSON. It is all 5-percent interest; yes.

Mr. O'CONNELL. Just a general question relative to costs. In your opinion—you are a practical construction man operating in this field for some time—what would you conceive to be the most important factors in construction cost that could be reduced to enable you to sell at a cheaper price?

Mr. DAWSON. Well, I have a few little notes on that. I believe the 3-percent material tax on every stick of lumber and everything that goes into that house could, in some way, be eliminated.

Mr. O'CONNELL. That is a local tax?

Mr. DAWSON. That is a State tax, a regular sales tax, and it is up to the contractor to pay all that, which adds 3 percent on the material, which we can't charge to the customer. If you give him a separate bill, you must include it right in there, or he would back right away from it in a lot of cases if he knew what the 3-percent sales tax would amount to.

Mr. O'CONNELL. Do you include the sales tax in your price?

Mr. DAWSON. Yes.

Senator KING. That is a general sales tax in the State?

Mr. DAWSON. Yes.

Senator KING. Three percent?

Mr. DAWSON. Yes.

Mr. O'CONNELL. What other items of payment could be reasonably reduced?

Mr. DAWSON. I believe in some cases we might eliminate some of the distributors and wholesalers and jobbers and dealers where we have to buy different materials. I believe they could be eliminated.

Mr. O'CONNELL. What would be the effect of that, that you would be able to buy your materials cheaper?

Mr. DAWSON. I believe so; if you could buy gravel right from the pit and certain other materials from the factories I believe you could cut the cost.

Mr. O'CONNELL. You could cut the material cost in that way?

Mr. DAWSON. I believe so.

Senator KING. A man who sells you lumber has to pay 3 percent?

Mr. DAWSON. He charges us 3 percent.

Senator KING. He is compelled to pay, when he makes the sale, 3 percent to the State?

Mr. DAWSON. That is correct.

Senator KING. When you purchased the land did you have to pay 3 percent of the cost on the land?

Mr. DAWSON. No; there is a small tax on the land; it doesn't amount to much. I believe it is \$1 a thousand valuation, a real-estate tax when you buy the land.

Senator KING. The tax of 3 percent is a sort of commodity sales tax?

Mr. DAWSON. It is a retailers occupational tax.

Mr. CHAWNER. Mr. Smith, have you attempted to buy any of your materials directly from manufacturers?

Mr. DAWSON. We have in certain cases. I believe Mr. Smith could give you some information on that.

Mr. O'CONNELL. Mr. Chairman, would you want to have Mr. Smith sworn?

Acting Chairman REECE. Do you solemnly swear the testimony you are about to give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. SMITH. I do.

**TESTIMONY OF CARLETON A. SMITH, SMITH & DAWSON, 1 NORTH
LA SALLE STREET, CHICAGO, ILL.**

COLLUSIVE PRACTICES IN THE CHICAGO AREA

(The reporter read Mr. Chawner's question.)

Mr. SMITH. Yes, we have in several cases, but there is an association of retailers in Cook County and they are organized so that everyone buying building materials must buy through an association yard. In other words, you can't go on the side and buy your materials.

Mr. O'CONNELL. You are in Cook County?

Mr. SMITH. We are in Cook County.

Senator KING. Is this a sort of combination of all the retailers?

Mr. SMITH. That is something that has just happened in the last year. They just recently had a case where, in some court or other, somebody brought up this 3-percent tax, and it looked like it might be defeated and they immediately revised their plan and included the 3-percent tax in their cost, and brought out a new price list which increased the rest of the commodities another 1 or 2 percent.

Senator KING. Is there no competition among the retailers?

Mr. SMITH. They are organized.

Senator KING. Then there is no competition.

Mr. SMITH. There is no competition.

Senator KING. Have you a law, if you know, in the State of Illinois, against restraints of trade?

Mr. SMITH. I don't know that.

Senator KING. It might be looked into by the Department of Justice.

Mr. O'CONNELL. When you speak of that, what is that, an association of retail lumber dealers?

Mr. SMITH. Yes. It is called the Material Merchants Association.

Mr. O'CONNELL. I understand that they are organized, but what is it that prevents you from buying materials directly from the manufacturer?

Mr. SMITH. They won't sell us.

Mr. O'CONNELL. The manufacturer won't sell?

Mr. SMITH. They will not sell.

Mr. O'CONNELL. Why won't the manufacturer sell?

Mr. SMITH. Because this association prohibits it.

Mr. O'CONNELL. How?

Mr. SMITH. Well, for an example, I will cite an example that just happened recently. We are buying now on a new subdivision, we are putting 70 acres on the market, and we bought about \$2,000 worth of gravel, or stone. It just happened that about a year ago, when we anticipated buying this land, we ordered this gravel. We wrote a

letter in and got protection, because we knew it would be soon and we wanted to protect ourselves on price, not knowing anything about this association. So when the time came to use it we started running a couple of independent trucks into our property, and the people who sell us the gravel came to us and told us that a complaint was made that we were buying stone direct, so I reminded them of the fact that a year ago I had written them a letter, or 8 months ago, before this affair went through, to protect myself on the price of stone.

Well, he is compelled to give us this price until we gravel these roads. After that I don't know what will happen. We are protected up until that time. We are buying building materials, \$1,500 worth a month, from a local dealer, and we may buy—well, we buy about 40 sacks of mortar a day, and possibly 30, 40, or 50 sacks of cement, and corresponding sand and gravel. Our price is the same as if we were an independent contractor there and had a back stoop that cost \$5 to build. In other words we are spending a lot of money and we are not able to take advantage of our buying volume in some commodities. In lumber we are able to make good connections. In other words, there is no association that protects that, evidently.

Mr. O'CONNELL. The association you refer to—

Mr. SMITH (interposing). Is just the material dealers. That is sand, gravel, cement, lime, mortar, tile, brick—not brick. That is a different outfit.

Senator KING. Is there a brick price, a uniform brick price?

Mr. SMITH. Yes; there is. There is an established price of \$11 a thousand for common brick in Cook County.

Dr. LUBIN. Have you ever attempted to go to the factory, to the manufacturer of these commodities, and purchase directly from him?

Mr. SMITH. There is no place you can go to. It has to be shipped in, and it will only be shipped to a licensed yard.

Dr. LUBIN. In other words, the manufacturer has refused to sell to you directly.

Mr. SMITH. The quarries have, on sand and gravel and things the like of that.

Mr. O'CONNELL. What do you mean by a "licensed" yard?

Mr. SMITH. By a material yard.

Mr. O'CONNELL. Who licenses it?

Mr. SMITH. They have their association. I don't know who licenses it, but there is a yard in each town, and some of the larger towns have more than one, and these yards all belong to this association. In other words, we are close to Arlington Heights and Mount Prospect. If we go into Arlington Heights we are handed a slip, and here is your price. We go to Mount Prospect and here is the same price. In other words, we are not supposed to be able to buy cheaper. So far we haven't been able to.

Senator KING. Supposing you desired 100,000 feet of lumber to meet certain contracts which you had made for houses. Couldn't you buy that lumber, say, from Oregon or Wisconsin?

Mr. SMITH. Yes; I believe we could in carload lots on the lumber part. We could do that, but as I mentioned before, on lumber we are getting a good price, and we are able to deal on lumber, and if we were to buy direct in carload lots, not being alongside of a siding we would have the trucking rates from the town down to our property, and the handling, which wouldn't pay us. We have looked into that

several times. We are able to buy lumber in large quantities, but it really doesn't pay us because we are getting the discounts.

Mr. O'CONNELL. What about gypsum?

Mr. SMITH. We are not allowed to buy that. The set-up in the Chicago territory is that the plaster contractor takes the contract for the plastering and the lathing of every house, and he buys the materials.

Mr. O'CONNELL. You couldn't buy the materials?

Mr. SMITH. We couldn't buy them.

Mr. O'CONNELL. The manufacturer wouldn't sell the materials?

Mr. SMITH. That's right.

Mr. HENDERSON. Whose regulation is that?

Mr. SMITH. That is evidently the union. There are several branches of the building trades in Chicago that we are not allowed to do ourselves. We must let out the plumbing, we must let out the heating, the plastering, which includes the lathing, the glazing—

Mr. HENDERSON (interposing). You say that includes the materials, so there must be some deal, isn't there, between labor and the material dealers?

Mr. SMITH. The plastering contractor buys his material from these different yards.

Mr. HENDERSON. From this association?

Mr. SMITH. From these material yards, that's right.

Mr. HENDERSON. There is an understanding between the plasterers?

Mr. SMITH. He is probably governed by the same price we are. I don't know that, but he is probably governed by our price too.

Mr. O'CONNELL. Could you buy plaster direct from the local yard?

Mr. SMITH. We could buy it, but we couldn't use it. We are not allowed to apply it. The plastering contractor must do that work himself.

The same with the electrical contractor and heating contractor and glazing contractor. Those things must be let out individually.

Mr. HENDERSON. You can't go to Crane or Kohler?

Mr. SMITH. They wouldn't even let us in their plant.

Mr. HENDERSON. Sears, Roebuck?

Mr. SMITH. You could go to Sears, Roebuck.

Mr. HENDERSON. What would happen then? Wouldn't the plumber handle it?

Mr. SMITH. There is a State law in Illinois on plumbing that there must be a permit issued by the State on each plumbing job, and the only man that can get that is a master plumber. We are not allowed to get that.

Mr. HENDERSON. Suppose you bought from Sears, Roebuck or Montgomery Ward. Would the master plumber handle it?

Mr. SMITH. No. As I understand it, there is one or possibly two master plumbers in Chicago that are appointed to handle those particular companies' materials, where it is done by a master plumber.

Mr. HENDERSON. Who appoints them? Who is the appointing authority?

Mr. SMITH. Evidently the Master Plumbers' Association.

Dr. LUBIN. What do you mean by a master plumber?

Mr. SMITH. A master plumber is a man who sets up a business, just like we are realtors. He sets up a business and hires plumbers and these plumbers do our work.

Mr. HENDERSON. He is the employer?

Mr. SMITH. He is the employer.

Dr. LUBIN. He is a contractor himself?

Mr. SMITH. In other words, we can't hire the plumber direct and put him on our job and buy our material. We hire the master plumber and master electrician.

Mr. HENDERSON. He is an employer of labor, rather than the laborer?

Mr. SMITH. He is in the same position we are, only in his particular field.

Dr. LUBIN. And you say that the manufacturer of these plumbing materials will not sell you any of their products, they will only sell to the master plumbers?

Mr. SMITH. That is right—Crane and Kohler and those.

Acting CHAIRMAN REECE. That arises out, does it not, Mr. Smith, of their policy of distribution, by which they have designated agents for their products in various parts of the country, and they feel, since they have their agents on whom they rely for the major part of their distribution, that it would not be fair to them to sell directly to particular purchasers, but is there any understanding between the agents of these concerns, plumbing or otherwise, by which competition is eliminated, so that all agents sell for the same price?

Mr. SMITH. Do you mean, if I go in to buy plumbing myself, in to Crane Co., can I buy it, or do I have to buy through this other man?

Acting CHAIRMAN REECE. No. Do all agents sell for the same price?

Mr. SMITH. Approximately so; there is a little variation of price. By agent do you mean the—

Acting CHAIRMAN REECE (interposing). The retailer.

Mr. SMITH. The master plumber or the man who is making the material?

Acting CHAIRMAN REECE. The master plumber as you have described him.

Mr. SMITH. No. You go out and get bids on it. There are probably 100 master plumbers in Chicago, maybe two or three hundred, I don't know, but there is a lot of them, and you can go out and get prices from these different men. It just happens that the way we operate our business we have built up an organization over the past 2 years which functions in harmony, and we have got a man who is in very good standing and he gives us a fair price and so we don't have competition in our organization.

Acting CHAIRMAN REECE. Out of your experience, are you advancing the suggestion that the retailers should be eliminated so that all business would be done directly with the manufacturer or producer?

Mr. SMITH. Well, I wouldn't go so far as to say that.

Acting CHAIRMAN REECE. That becomes a matter of consideration if the type of business is such that retail agents are necessary. Then is it not incumbent upon the manufacturer and producer to give a certain amount of protection to his retailers?

Mr. SMITH. Yes.

Acting CHAIRMAN REECE. As I understand, that is true, under your system of distribution, of a great many businesses. Take a wholesale hardware business; he doesn't sell to the consumer direct, he sells to a retailer.

Mr. SMITH. That is right.

Acting Chairman REECE. And a great many other businesses have the same system of distribution. I assume that at one time at least such a system was found or thought to be necessary.

Mr. SMITH. That may be true, but from our own organization and from our own business we have eliminated in our own particular organization just exactly that sort of thing, in that we have eliminated the sales organization and the contractor, that is the general contractor. If we were to hire salesmen—let's put it these men who are doing these individual jobs for us—to sell our land and our homes we would add five, six, seven hundred dollars to the price of a house; we would have to hire a general sales manager and give him 5 percent commission, and he would have his different unit managers and salesmen and we would also have to, if we did that, probably sell three or four or five times as many homes as we do, and that would necessitate putting on general contractors to build these homes, and before we knew it we would be up twelve or fifteen hundred dollars more money in the cost of the house. That means that our sales resistance would be greater and that we would finally get to the point where we might not be able to sell homes. We have tried to eliminate that. We are trying to keep the cost of this house down as much as possible. We have eliminated, as I say, the sales organization and the contractor. There is no question but that if other things could be eliminated the house could be sold cheaper. I am not going to say whether I advise that it be done.

Dr. LUBIN. Mr. Smith, if you were permitted to buy from any dealer any of the things you needed in the construction of your houses along the lines of electrical equipment or plumbing equipment, and were then permitted to hire your own labor—I understand that you use union labor——

Mr. SMITH. Yes.

Mr. LUBIN. Do you think you could save anything on the cost of that house?

Mr. SMITH. Yes, sir.

Senator KING. You have to buy, as I understand it—if I am wrong I want to be corrected—from retail organizations and those retail organizations have rules among themselves which they are governed by and they fix prices of the commodities which they sell.

Mr. SMITH. That is right.

Senator KING. You pay substantially the same price for your brick no matter from whom you buy brick?

Mr. SMITH. That is right.

Senator KING. And the same for plumbing fixtures?

Mr. SMITH. We don't buy plumbing fixtures; that is, in on the plumbing contract—sewer pipe, sand, and gravel.

Senator KING. The person who puts in your plumbing buys the fixtures himself?

Mr. SMITH. That is right.

Senator KING. You couldn't buy your own fixtures if you desired?

Mr. SMITH. That is right.

Senator KING. Could you advertise successfully and obtain any competition? Suppose you wanted to put in plumbing for a half dozen houses, could you advertise and gets bids for it?

Mr. SMITH. Oh, yes; we could advertise and get bids from plumbing contractors, from master plumbers.

Senator KING. Would there be any competition there?

Mr. SMITH. Oh, yes. There are a hundred contractors, as I say, that would be glad to bid on our work, but we feel that we have a man who is good; he may not be the cheapest, we might be able to go around and get these fellows competing against each other. I don't know whether that is such good business. We believe we have got to come to a point where we can sell a good home at a fair profit and get people in there that will have something when they get in.

Senator KING. You say that you are free from a combination with some of these persons with whom you are dealing, from whom you obtain your supplies and fixtures.

Mr. SMITH. Are we free from—

Senator KING (interposing). Joining with any of these organizations.

Mr. SMITH. Oh, we are not joined with them.

Senator KING. Have you agreed not to buy your plumbing fixtures or your lumber or anything else through any organization; that is, have you agreed that you will buy from none other than those that belong to those associations?

Mr. SMITH. Well, of course, you are getting lumber into the plumbing again. Lumber we can buy any place we want to and deal on it, get our prices, because that is not fixed.

Senator KING. Is that true of brick?

Mr. SMITH. Brick is more or less \$11 a thousand for common brick, and that is what is used universally. We buy 100,000 brick a month.

Senator KING. How about the glazier, the glass?

Mr. SMITH. The glazing must be done by a union glazier on the job.

Senator KING. So you are pretty well bound up, are you not?

Mr. SMITH. With the five trades that we must hire as subcontractors, there is no other way we can operate. Our only way of saving money and selling a house cheaper than we think our competition sells is the fact that we eliminate the sales organization and the general contractor.

Senator KING. Suppose there was free competition among the manufacturers of brick, lumber, plumbing, on everything that goes into the house, absolutely free competition, you could buy your commodities a great deal cheaper, couldn't you?

Mr. SMITH. Oh, yes.

Mr. O'CONNELL. I would like to refer just for a moment to the question, thinking again of this retail organization, which is composed of the retail tradesmen who sell plaster, lime, brick—

Mr. SMITH (interposing). Building material yards.

Mr. O'CONNELL. That is an organization which you referred to as licensed dealers in Cook County.

Mr. SMITH. I said licensed—I don't know whether they are licensed—they have their organization.

Mr. O'CONNELL. Could I belong to that organization?

Mr. SMITH. If you were a building material yard in good standing you could.

Mr. O'CONNELL. Suppose I wasn't. Suppose I just had some money and wanted to go into the business.

Mr. SMITH. Then you would set up your yard and go in the business and make application to join it.

Mr. O'CONNELL. I see, I would apply for a license.

Mr. SMITH. You would apply for a membership.

Mr. O'CONNELL. I would apply to this association of retail tradesmen and if they saw fit I could go into that business.

Mr. SMITH. That is right.

Senator KING. If they saw fit he couldn't.

Mr. SMITH. I can't say that.

Mr. O'CONNELL. And if they saw fit that I not go in that business and I had a retail yard selling these or attempting to sell these various commodities, would I have a market, would I be able to sell the materials, do you suppose?

Mr. SMITH. You would have a good market with us. We would start doing business with you right away.

Mr. O'CONNELL. What would happen? You would buy from me.

Mr. SMITH. I would.

Mr. O'CONNELL. Although I was not a member of the association. What would the association do, do you suppose?

Mr. SMITH. I don't know.

Senator KING. Wouldn't your union employees strike?

Mr. SMITH. They might.

Senator KING. If you bought materials from an organization such as might be set up by our friend here?

Mr. SMITH. I am afraid you would run into trouble.

Mr. O'CONNELL. What about at the other end? Would I be able to buy the commodities that I would want to be able to sell from the manufacturers?

Mr. SMITH. Of course I couldn't answer that. I know what I think, but I have nothing to substantiate what I think. I don't know whether you could or not.

Mr. O'CONNELL. One more question. Taking such a thing as millwork that goes into a house, how would you buy the windows?

Mr. SMITH. We buy that from a lumber company.

Mr. O'CONNELL. Would you buy the glass in the windows?

Mr. SMITH. No. We are not allowed to. The glass must be put in the windows on the job. It must be glazed on the job by union glaziers.

Mr. O'CONNELL. Whose rule is that?

Mr. SMITH. The union's.

Mr. O'CONNELL. So you buy the window frames, the sash, without the glass; and they are placed in the windows and then the glazier or the member of whatever union it is——

Mr. SMITH. Glaziers' union.

Mr. O'CONNELL (continuing). Put's the glass in?

Mr. SMITH. In the window on the job; it must be at that particular building.

Dr. LUBIN. Is that employee who put that glass in one of your own employees?

Mr. SMITH. Oh, no; he is a union man and he is sent out by the master glazier.

Dr. LUBIN. Who sells the glass.

Mr. SMITH. Who sells the glass, and who calls the man from the union; he is called out. They have a certain number of days each month they work. I think it is something like 8 or 10. There is

quite an excess of union men in Chicago now, and they have their turns and they work one place today and may work for another contractor tomorrow. At any rate, 8 or 10 days in the month. That is all done on the job.

Mr. O'CONNELL. I have no further questions.

Acting Chairman REECE. Are there any further questions?

Mr. O'CONNELL. Thank you very much, Mr. Smith and Mr. Dawson.

(The witnesses Smith and Dawson were excused.)

Acting Chairman REECE. The committee will stand in recess until 2:30 o'clock.

(Whereupon at 12:40 p. m. a recess was taken until 2:30 p. m.)

AFTERNOON SESSION

The committee resumed at 2:40 p. m. on the expiration of the recess.

Acting Chairman REECE. The committee will come to order, please. Mr. O'Connell, you may proceed.

Mr. O'CONNELL. We have only one witness to call this afternoon, who will continue and give the committee some cost figures and data to enable the committee to better understand the problem. His material will relate to large-scale rental housing projects as distinguished from the single family type of dwelling that we considered this morning, and with that in preface I would like to call Mr. Schnitman to the stand.

Senator KING. Is it the purpose of those who are conducting this hearing to enter the field that was briefly touched upon this morning by one of the witnesses, namely the agreement between labor and some of the retailers, the effect of which is to make costs higher and which agreement, oral or written or a mere understanding, would seem to constitute a violation of the Sherman antitrust law?

Mr. O'CONNELL. I think it is only fair to say that from time to time as the hearing progresses that particular type of structure which was referred to this morning will recur. Various witnesses will refer to it and at a later point in the hearing we expect that the Department of Justice will give us some material in connection with it which will be of a general character largely because, as you may be aware, the Department of Justice has already announced that a wide investigation is being made of the type of practices being referred to, and that necessarily limits the extent to which we may go in detail with regard to particular areas or particular practices that are probably in violation of the Sherman Act, which is very definitely a part of the picture which we are hoping to paint.

I am only indicating that for the reasons I have indicated. We may not be able to paint it with the degree of particularity that we might like.

Senator KING. I hope that that matter will be covered before this investigation closes, because from the testimony given this morning and from information which has been brought to my attention, there seem to be—I will not say conspiracies, but organizations which are promoted for monopolistic practices in the building-trade activities.

Mr. O'CONNELL. As I have said before, I think that will be touched on from time to time and as we go on a little later I think it will be

more adequately explained why we are unable to cover the whole field with the degree of particularity you might like.

Acting Chairman REECE. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. SCHNITMAN. I do.

TESTIMONY OF L. SETH SCHNITMAN, CONSULTING ECONOMIST, NEW YORK

RELATION BETWEEN CAPITAL COSTS AND ANNUAL COSTS

Mr. O'CONNELL. Will you state your full name and address for the record?

Mr. SCHNITMAN. L. Seth Schnitman, 521 Fifth Avenue, New York City.

Mr. O'CONNELL. And is it correct to say that you are former chief of the survey of current business and former chief statistician of F. W. Dodge Corporation, and are at present a consulting economist in private practice?

Mr. SCHNITMAN. Yes, sir; that is true.

Mr. O'CONNELL. You were, or are, a member of the subcommittee on research of Mayor LaGuardia's committee on real-property improvement?

Mr. SCHNITMAN. I am.

Mr. O'CONNELL. I think that sufficiently qualifies Mr. Schnitman to discuss the things we are going to discuss with him this afternoon.

As an economist who has made some studies of the construction industry, could you consider that to approach the problem from the point of view of costs, is a proper, or you might say the best, way, of approaching the problem or removing obstacles to recovery in the building industry?

Mr. SCHNITMAN. Well, I don't know that I would say that that is the best way, but I think it is certainly a vital point that must be examined thoroughly.

Mr. O'CONNELL. That is the point that we were going to discuss with you this afternoon, and I think we are in accord that it is an important point.

When we refer to costs, I think it would be well for you to clarify for the committee the various types of costs that we have. It is a rather broad word.

Mr. SCHNITMAN. I rather agree with you, because there has been so much confusion as to just what are the costs in the construction field. Taken by and large, I would say that there are three distinct types of costs that one might talk about. There are, for example, construction costs. I might define that by saying that it embraces, usually, items of labor, materials, and contractors' overhead; frequently it is referred to as the contract cost.

Now there is another item of costs that is frequently used and talked about, and that is building costs, otherwise called development costs, which embraces in addition to construction costs as already defined the item of land and miscellaneous fees, of the contractors' fees and architects' fees and organizing fees and things of that sort.

Then there is a third element of costs which might be called housing costs, housing in the broadest sense; that is, shelter cost, not neces-

sarily confined to housing, although the bulk of my testimony will be only on the housing cost among residential units, and that, of course, is what the occupant pays, whether it is in the way of rent or rental equivalent in the case of a purchased house.

We have heard something this morning about costs, rental costs, as applied to the small house. I don't think it will be necessary at all to repeat any of that. I would rather, and am prepared really only to talk about the large-scale housing projects.

Mr. O'CONNELL. Before we go into detail on that, just to be sure I understand you, development cost would be what we generally think of as the capital cost, the over-all cost, ready for operation?

Mr. SCHNITMAN. Including landscaping and everything else.

Mr. O'CONNELL. And housing cost is your way of denominating what is sometimes referred to as the annual cost, or the consumer's cost; what it really costs.

Mr. SCHNITMAN. It might be called the cost of upkeep.

Mr. O'CONNELL. We referred to it this morning as annual cost.

Mr. SCHNITMAN. I think that is proper.

Mr. O'CONNELL. I don't want to go into the question of semantics, but housing costs didn't seem to me to be as descriptive of what you were talking about as if you would use annual costs. You mean continuing costs per month or per year?

Mr. SCHNITMAN. Yes.

Mr. O'CONNELL. Either to rent or own the accommodation.

Mr. SCHNITMAN. That is right.

Mr. O'CONNELL. We were going to confine ourselves, as I understand it, to large scale rental housing projects because we discussed the single-family home this morning, and I understand this presented a somewhat different picture. You have, I take it, some detailed information about particular large-scale renting projects that have been constructed.

Mr. SCHNITMAN. I have examined six large-scale rental housing projects constructed in recent years.

Mr. O'CONNELL. Would you tell us just generally what those projects are by name so we may understand that?

Mr. SCHNITMAN. There is the Knickerbocker Village project in New York City, which was financed by the R. F. C.

Mr. O'CONNELL. That is a limited dividend housing corporation, under the New York State Housing Law?

Mr. SCHNITMAN. That is right. And there is the Hillside housing project, which is a project financed by the P. W. A., also a limited dividend project.

Mr. O'CONNELL. You mean financed by loan.

Mr. SCHNITMAN. By loan. There is equity money in both.

Mr. O'CONNELL. But no grant.

Mr. SCHNITMAN. That is right.

Mr. O'CONNELL. A Federal loan in both cases.

Mr. SCHNITMAN. That is right. And then there is the Carl Mackley Homes in Philadelphia. That has also been financed by loan from the Federal Government.

Mr. O'CONNELL. Is that a limited dividend corporation?

Mr. SCHNITMAN. Yes.

Mr. O'CONNELL. Do you happen to know whether it is limited dividend under Pennsylvania State law or by virtue of contract with the Federal agency? I am not familiar with it myself.

Mr. SCHNITMAN. I am really not prepared to say.

Mr. O'CONNELL. But at any rate it is being operated at the moment as a limited dividend corporation?

Mr. SCHNITMAN. Yes.

Mr. O'CONNELL. And the other three?

Mr. SCHNITMAN. There is Brentwood Village and the Falkland Properties in the District of Columbia. Those are F. H. A. projects; that is, there is no Federal money in there at all by way of loans. The Federal Government under the large-scale rental provisions of the National Housing Act has guaranteed the mortgage; and there is still one other project of the same type in York, Pa., and that is known as the Elm Terrace Apartments, likewise financed under the F. H. A. guarantee plan.

Mr. O'CONNELL. Are those latter three limited dividend by contract?

Mr. SCHNITMAN. No; they are not.

Mr. O'CONNELL. They are not? I was under the impression that the large scale F. H. A. financed projects were in some cases at least limited dividend so long as the F. H. A. had insured the mortgage. It isn't important in any event.

Mr. SCHNITMAN. I withdraw that; I would like to amend that for the record, if I may.

Mr. O'CONNELL. You mean at a later time?

Mr. SCHNITMAN. Yes; at a later time. It isn't important in the study.

Mr. O'CONNELL. That is true. I just wanted to be sure that the committee understood that we were discussing now, the three that were all privately constructed projects—the first three referred to are constructed by private limited dividend corporations, a portion of the financing of the capital cost having been advanced by either R. F. C. or P. W. A. in the first three cases; and in the latter three cases all the money, either equity or mortgage, having been advanced by private sources, in the latter three cases the mortgage money having been insured by F. H. A. I don't think it is important here, but those are the six projects that Mr. Schnitman is going to refer to.

With that introduction, were you going to discuss the various items that go to make up the monthly rental dollar in some of these projects, or would you prefer to go immediately to one of the projects and discuss it in detail?

Mr. SCHNITMAN. I think it probably would be better to take one single element of cost as already defined and carry it through for each of the six projects, let's say construction costs for all of the six projects, and the rental costs for all of the six projects.

Mr. O'CONNELL. All right, let's do that briefly on the construction costs first.

Mr. SCHNITMAN. I don't think it is wise or necessary for me to stand up here at this chart.¹ I think you can all see it. I can refer to the chart as I have it here and I think it would be a little more convenient.

Mr. O'CONNELL. Please identify the chart you are going to refer to first. Having identified all of them we will offer them all for the record after you have finished with all the charts.

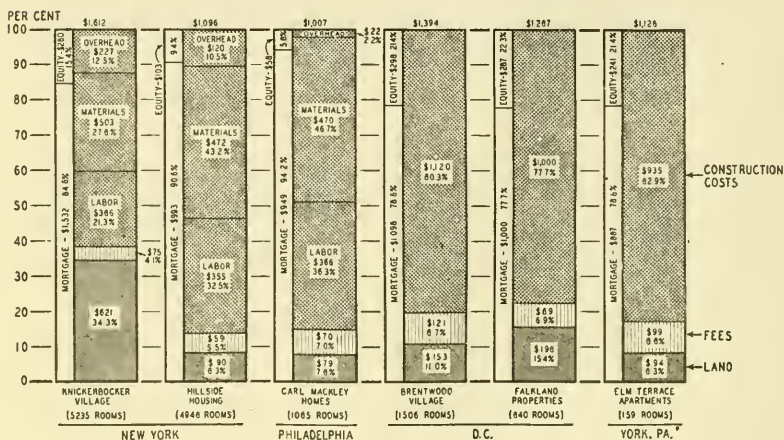
Mr. SCHNITMAN. The top chart is headed "Building Costs per Room." You will notice there that there is a bar for each building.

¹ Subsequently entered as "Exhibit No. 855," *infra*, p. 5024.

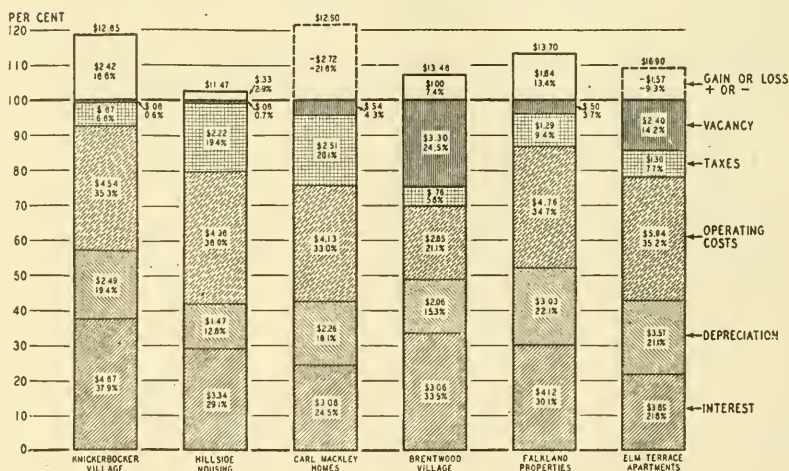
The entire cost reduced to a per-room^{RE} basis represents 100 percent. On Knickerbocker Village, you will find that 34.3 percent of the total per-room cost represented the item of land, or \$621 per room out of a total over-all building cost per room of \$1,812. I will have a little

EXHIBIT No. 855

BUILDING COSTS PER ROOM



HOUSING COSTS PER ROOM PER MONTH



more to say about that as I proceed. That is the first bar to the left.

If you look at the same item of land, which is the bottom section of that second bar at the top of the page, you will see in reference to Hillside Housing, that only 8.3 percent represented the cost of land on a per-room basis, or only \$90 as against \$621 in the Knickerbocker Village project. This is probably as good a place as any to indicate

the reasons, or some of the reasons at least, for the difference, the very large difference, in the land cost between these two projects, both in New York City.

The first project, namely the Knickerbocker Village project, represented a building operation that was essentially a slum-clearance project. All of the facilities were in—when I speak of facilities I mean sewers and water facilities and all of that sort of thing. Therefore, it was not on raw land. The converse was true with reference to Hillside Housing; it was virgin land and required considerable in the way of developments such as sewerage, water systems, and so forth. That, in a large degree, of course, accounts for the difference in land costs, but it isn't the entire story. Being virgin land in the outlying sections of New York, the land value was essentially lower, quite apart from the fact that there were no improvements on the land.

Now, if you go over to the Carl Mackley Homes, which is the third bar from the left in the upper section of the chart, you will find that the land cost there on a percentage basis per room runs 7.8 percent or only \$79 out of a total over-all room cost of \$1,007.

MR. CHAWNER. May I interrupt just a moment? Does this land you include mean the raw land or improvement cost included as well?

MR. SCHNITMAN. Well, there is some overlap and it is not too easy to eliminate that overlap, but the principal thing to be noted, as I have already indicated, is between Knickerbocker Village and Hillside Housing, one being on raw land and the Knickerbocker being on improved land, in the sense that the facilities were in, such as water and sewerage and gas and electric lines, and things of that sort.

MR. O'CONNELL. In major part, to the extent that the supplying of those facilities are included in this over-all cost at Hillside, would it be fair to say that that cost is included in material or labor? This is purely the cost of land?

MR. SCHNITMAN. Perfectly fair assumption. Now in the case of Brentwood Village and the Falkland Properties both in the District of Columbia, you find there that the percentage for land cost on a per-room basis was somewhat higher than was true in the case of Hillside Housing, and Carl Mackley Homes, and looking over to the last bar you will find that the Elm Terrace Apartments of York, Pa., had a land cost precisely the same on a percentage basis with a land cost at Hillside Housing in New York City, a striking difference, of course, as between the size of the communities.

SENATOR KING. How do you account for that? What would seem to be the cause for the extreme cost for the York, Pa., land measured by the cost of the New York?

MR. SCHNITMAN. Well, I think it can be largely accounted, again, for by this question of overlap. One has to make these comparisons or accept these comparisons with a considerable grain of salt. That is, their overlap would come in case of the construction costs or in the case of materials.

MR. O'CONNELL. I am not sure that I understand that. In both cases isn't this intended to be the actual cost of the acquisition of the land in whatever State it happened to be?

MR. SCHNITMAN. Yes, that is true; but it might cost more money to improve, put in the facilities such as water mains and so on in a given section. Remember, this is on an over-all basis, on a percentage basis, and it is only on the percentage basis that it works out that

way. Of course in actual cost, the cost per room was \$84 in the case of the York property as against only \$90 per room in the case of the Hillside property.

Mr. CHAWNER. Would it be fair to say, then, Mr. Schnitman, that when the land was bought for the Knickerbocker Village project more was bought with the land than in the case of the Hillside project?

Mr. SCHNITMAN. Exactly.

Mr. CHAWNER. In one case you bought all these facilities that were not available in the Hillside project?

Mr. SCHNITMAN. Of course, it is also fair to say, I think, that at the time the land was acquired for the Knickerbocker property it was a going opinion in New York that every site was a potential site for a skyscraper. I think it is important to bear that in mind with reference to the Knickerbocker land cost.

Mr. O'CONNELL. You mean to that extent it was of larger value, quite apart from the facilities of which we are speaking?

Mr. SCHNITMAN. That is right.

Mr. O'CONNELL. Per-foot price of land in downtown Manhattan.

Mr. SCHNITMAN. The average cost of the land there ran about \$15 per square foot, the acquisition cost.

Senator KING. You are speaking of New York?

Mr. SCHNITMAN. Of the Knickerbocker Village project.

Mr. O'CONNELL. Downtown, is it not?

Mr. SCHNITMAN. Yes.

Mr. O'CONNELL. The Hillside is up in the Bronx?

Mr. SCHNITMAN. Yes.

Senator KING. Did they erect many houses or apartment houses upon the Knickerbocker site or did they erect buildings for rental purposes, I mean business property?

Mr. SCHNITMAN. No, it is a housing project; this is a housing project, very large project, running from 1 to 13 stories in height, with elevators and terraced penthouses.

Mr. O'CONNELL. That appears to be the largest of all the projects we are considering, in terms of rooms, is it not, 5,000 rooms?

Mr. SCHNITMAN. Even as to rooms I think we ought to bear in mind that those are what are known in the industry as "construction rooms" as differentiated from "residential rooms." Construction rooms meaning the rooms excluding the bathroom and the dinettes, which are counted in residential rooms as half-rooms, so that the total number of residential rooms, so-called, is even greater than that shown on the chart.

I notice I hadn't put that number of rooms on the chart. There is a table I believe that carries that. Now if we move upward from the bottom, where we have discussed land, we come to the next item, which is fees. Now with reference to the Knickerbocker Village we find that the item of fees which includes such things as architects' fees and organization expenses, and so on, represented 4.1 percent of the total per-room cost, or in terms of actual dollars, \$75 out of a total per-room cost on that project of \$1,812. Correspondingly, with reference to Hillside Housing, which is the next bar from the left, the item of fees represented 5.5 percent, and a total cost of \$59 out of a grand total per-room building cost of \$1,096.

Moving again to the right, Carl Mackley Homes, fees represented 7 percent, total actual cost of \$70 per room out of a building cost total of \$1,008.

Senator KING. How do you account for such wide variances there?

Mr. SCHNITMAN. Well, that is in a measure due to, again, the question of what I call overlap. In some instances the permits might have to be paid for by the contractor, subcontractor, and in other instances not so, so that the total cost of the fees might be included in another item. It might be carried in, for example, the top section of the chart as overhead or elsewhere, because it is impossible to make that differentiation, but, taking it by and large, the overlap is not so great as to negative the comparison between these projects.

Mr. O'CONNELL. How would you explain the wide variation that the Senator speaks of, if you can't explain it in terms of overhead?

Mr. SCHNITMAN. Well, it really isn't an easy matter to explain. I wish it were so that I could, in an accurate fashion.

Senator KING. Wouldn't it connote that there were excessive charges somewhere along the line?

Mr. SCHNITMAN. There might be that type of connotation.

Senator KING. Speculative activity, somewhat?

Mr. SCHNITMAN. It is possible to read that kind of connotation into it.

Senator KING. Extreme labor costs in some places?

Mr. SCHNITMAN. The item of labor costs—

Senator KING (interposing). Architectural fees, or something of that kind?

Mr. SCHNITMAN. That might enter into it.

Mr. O'CONNELL. I understand you are attempting to confine yourself largely to the figures that are here. Most of these figures were obtained by Mr. Schnitman through either F. H. A., the State housing board, or the agencies that have them, and he is probably not in position to explain the discrepancies as well as he would like.

Mr. SCHNITMAN. So, if we move over further, we find again that sort of comparison: Brentwood Village is 817 percent for the fees, Falkland Properties at 6.9 percent, and for the Elm Terrace Apartments 8.8 percent.

Moving up again, we come to the question of labor. This is direct labor on the site, and has nothing to do with the labor in the production of the materials that are assembled on the site. Looking at the Knickerbocker Village, then, we find that labor cost, direct labor on site, represented 21.3 percent, or a total of \$386 out of the total over-all room cost. In the case of the Hillside project it was \$355 for direct labor, or 32.5 percent. In the case of the Carl Mackley Homes it was \$366, or 36.3 percent of the total over-all per room cost.

Mr. O'CONNELL. I take it the percentage attributable to labor on the Knickerbocker Village project is diluted by the large percentage attributable to land, so it doesn't indicate any exceptional labor savings.

Mr. SCHNITMAN. No; although there is one thing that one must remember, that even as between labor and materials there is some overlap. There might be present—take mixed concrete delivered on the job, where in another instance the concrete may be mixed right on the job. That would make some difference as between the category that that cost would fall into, whether it be classed as a labor cost or as a material cost.

Now, if we move up again we find the item of materials.

Mr. O'CONNELL. I take it that on the three F. H. A. projects labor and materials is not broken down. It is not available.

Mr. SCHNITMAN. That's right; it is not available.

I think I might say for the record that I believe the Bureau of Labor Statistics has made a real contribution in its break-down of these cost items on these first three projects. So far as I know there is no other agency that has done that sort of thing.

So that if we come to the item of materials, looking at the Knickerbocker Village again, the material cost represented 27.8 percent of the total over-all room cost, and Hillside Housing showed 43.2 percent, and for the Carl Mackley Homes 46.7 percent.

The item of overhead: The Knickerbocker Village project was 12.5 percent, for the Hillside Housing 10.5 percent, and for the Carl Mackley Homes 2.2 percent.

Representative WILLIAMS. What is included in your term "overhead"?

Mr. SCHNITMAN. Well, that is the contractor's overhead on the job. It covers everything, or includes such items as trucking, machinery, and things of that sort.

Mr. O'CONNELL. It includes contractor's overhead as distinguished from the organization overhead of the corporation.

Mr. SCHNITMAN. That's it exactly.

Mr. O'CONNELL. Well, in a case such as Knickerbocker Village I imagine it was built under contract.

Mr. SCHNITMAN. All of these places were under contract.

Mr. O'CONNELL. The Hillside Housing project was built under a different type of contract, on a fee basis, so clearly the overhead of the contractor would be included under overhead.

I wonder if that has been broken down so that the contractor's overhead is not included in labor and material in those cases.

Mr. SCHNITMAN. There is some little overlap there, too, but I don't think it is consequential.

Mr. O'CONNELL. There is a very wide variation between the overhead on the first two projects and that attributable to the Carl Mackley Homes, is there not?

Mr. SCHNITMAN. Yes.

Mr. O'CONNELL. You wouldn't have any explanation of that that you happen to know?

Mr. SCHNITMAN. No; because I can't be entirely sure, unfortunately, of this element of overlap and the method of accounting, as to whether the comparative basis is a strictly fair one.

Mr. O'CONNELL. I think, unless the committee has some questions, that is sufficient on the over-all capital costs.

Is it satisfactory to you, Mr. Schnitman, to move to what we refer to as annual costs, which I think are very significant?

Mr. SCHNITMAN. Look at the bottom of that page. I have these costs, the annual costs, or housing costs per room per month, broken down likewise for these same six projects.

Mr. O'CONNELL. Are these costs per room per month on the same basis; that is, on a basis of construction rooms?

Mr. SCHNITMAN. Yes, this is on construction rooms, on an identical basis with what appears on the top.

Mr. O'CONNELL. So we really couldn't compute the cost per room on a rental basis, these figures, at \$12.85 per room in Knickerbocker Village?

Mr. SCHNITMAN. Those are on a construction room basis, not a residential room basis.

If we look at the bottom of that page we find the item of interest. I think it might be well here to indicate immediately that the housing costs can be broken down into interest, depreciation, operating costs, vacancy allowances, and the item of gain or loss.

Mr. O'CONNELL. What do you mean by gain or loss, the return to the equity?

Mr. SCHNITMAN. That is the amount available for the equity.

If we look at the item of interest we find that it ranges on a per-room per-month basis in the Knickerbocker Village from 37.9 percent of the total annual cost or monthly cost per room, to 21.8 percent in the case of the Elm Terrace Apartments in York, Pa.

There again the reason for the apparently high rate, the apparently high proportion of the interest charges in the total over-all annual or monthly costs per room is tied, obviously, to the question of the original building costs, because the project had to be financed, and the interest charge, of course, is figured on the amount of money that was loaned to the project.

Now, if we move up—

Mr. O'CONNELL (interposing). Before you do that, do you happen to have any information as to whether there was any wide variation in the interest rates as between these projects?

Mr. SCHNITMAN. There is none.

Mr. O'CONNELL. There is no variation?

Mr. SCHNITMAN. The rates run from 4 to 4.5 percent, but on these two projects, Knickerbocker Village and Hillside, it is 4 percent.

Mr. O'CONNELL. And the F. H. A. project is 4.5 percent?

Mr. SCHNITMAN. I believe there was one of them that was 4.5 percent.

Mr. CHAWNER. Wouldn't it be fair to say also, Mr. Schnitman, that the portion of the total financing met by borrowing would also affect the interest? One would have to consider interest in relation to gain and loss.

Mr. SCHNITMAN. Yes, yes; that is entirely right.

Mr. CHAWNER. The amount of funds was less in the case of one project, the amount of funds obtained by borrowing was less, but you would expect a larger item in the form of your equity, or gain or loss, as you have indicated here.

Mr. SCHNITMAN. That is right.

Mr. O'CONNELL. You don't have any information as to the relative amount of borrowed money?

Mr. SCHNITMAN. Oh, yes; I have that all here.

The mortgage on the Knickerbocker Village, out of a total cost of, roughly, \$9,500,000, was \$8,000,000 or a little better, and the equity was about a million and a half. Incidentally, that represented a higher ratio of equity than is true in any of these other projects. In most cases the equity was roughly 10 percent on the other projects.

Does that answer your question?

Mr. O'CONNELL. Yes, it does. I am a little bit puzzled. I thought the required equity on F. H. A. projects would probably be 20 percent.

Mr. SCHNITMAN. You are entirely right about that. Perhaps I had better give you these figures. In the case of the Hillside housing

project, out of a total over-all cost of \$5,421,000, the mortgage represented \$4,988,000, the equity \$433,000. These are very round figures.

In the case of the Carl Mackley Homes the total over-all cost was \$1,093,000 and the mortgage was \$1,050,000. The equity money was only \$63,000.

On the F. H. A. projects, the Brentwood Village, in the District of Columbia, the total over-all cost was \$2,100,000 and the equity money was \$449,000, the mortgage money \$1,651,000.

On the Falkland Properties, also an F. H. A. project, the total over-all cost was \$1,081,000 and the mortgage was \$840,000. The equity was \$241,000.

In the case of the York, Pa., property, the total over-all cost was \$179,000 and the mortgage money was \$141,000, and the equity about \$38,000.

Mr. O'CONNELL. Would you care to offer that chart for the record? What is it entitled?

Mr. SCHNITMAN. "Total Building and Housing Costs of Six Rental Housing Projects."

Mr. O'CONNELL. I will offer these documents for the record, with the charts.

(The chart referred to was marked "Exhibit No. 855" and appears on p. 5018. The statistical data on which this chart and "Exhibit No. 856" are based are included in the appendix on p. 5482.)

Mr. O'CONNELL. I have been making some notes as you went along. I think this is fairly correct, that on the Knickerbocker project the equity was approximately 25 percent—between 20 and 25 percent—on the Hillside it was substantially 10 percent, on the Carl Mackley Homes approximately 7 percent, and the three F. H. A. projects, 20 percent, or slightly in excess of 20 percent.

Mr. SCHNITMAN. That is correct.

Now, we move up to the item of depreciation. You will find that depreciation in the case of the Knickerbocker Village accounted for 19.4 percent of the per-room per-month cost, or it might be figured on the annual cost. That runs all the way from \$2.49 in the case of that project, the Knickerbocker project, down to \$1.47, or 12.8 percent, in the Hillside housing project, which happens to be the lowest on the item of depreciation of these six projects studied.

Now, operating costs:

Mr. O'CONNELL. I take it, that this item of depreciation includes, and is larger in each case than, the amortization.

Mr. SCHNITMAN. That is true.

Mr. O'CONNELL. The depreciation being an assumed rate at which the property will deteriorate.

Mr. SCHNITMAN. And providing for funds for replacement of the physical property.

Mr. O'CONNELL. And the amortization, a lesser sum, being the rate at which the mortgage is being liquidated.

Mr. SCHNITMAN. The rate at which the mortgage is being liquidated.

Moving up again, operating costs—and I might perhaps define operating costs a little bit. That includes fuel costs, janitors' supplies, and everything necessary to keep the building in good working condition. For Knickerbocker Village that item represented 35.3 percent of the per-room per-month charge, whereas for the Brentwood

Village project it represented only 21.1 percent of the total per-room per-month or annual charge.

Mr. O'CONNELL. There shouldn't be much of what we were referring to as overlapping in that particular type of figure, should there?

Mr. SCHNITMAN. No; there is not a whole lot of overlap there. One of the big differences, of course, in the item between the Knickerbocker Village and Brentwood Village is the fact that the Knickerbocker Village is a very large project. It is a 9- and 13-story project with elevators, which, of course, enters itself into the item of operating costs.

Mr. O'CONNELL. But if you are considering your operating costs on a basis of operating cost per room per month, could I imply from that that the larger the project the more it costs per unit to operate?

Mr. SCHNITMAN. That wouldn't be a fair implication. Of course, it is a different type of project from the type of project that Brentwood Village is, because you have a number of building-service employees there. They have the item of building-service pay pretty well in the forefront, it has been for the last 2 or 3 years in New York. That is an important item. It is not the all-important item of operating costs, to be sure, but it is an important item that has to be considered. It makes an essential difference between that type of project and the Brentwood Village project in the District of Columbia.

Mr. O'CONNELL. I notice the rest of the chart, which indicates that in the smallest of the projects, the one in York, the operating costs are substantially higher than they are even in the Knickerbocker Village.

Mr. SCHNITMAN. That is true.

Now, if we move up again and find the item of taxes on a per-month per-room or annual basis, we find that taxes account for, in the case of the Knickerbocker Village, 6.8 percent. That runs, oddly enough in the case of the Carl Mackley Homes, to as high as 20.1 percent. That has an explanation all its own. In that item for the Carl Mackley Homes there are penalties for unpaid taxes, back taxes. As you will notice, that building is running in the red. That is the reason the chart is drawn in the manner to indicate the section above 100 percent. The item is a loss item with reference to the Carl Mackley Homes.

Mr. O'CONNELL. Before we leave the taxes, it is somewhat surprising to me to find the taxes on Knickerbocker Village so much smaller than on the Hillside housing project and other properties in New York. Is there a tax-exempt item to explain that difference, or do you happen to know?

Mr. SCHNITMAN. I believe there is a tax exemption.

Mr. O'CONNELL. I am not entirely familiar with the New York State law.

Mr. SCHNITMAN. I believe there is a tax exemption, yes.

Mr. O'CONNELL. Of course, Hillside housing is also a limited-dividend corporation operating under the New York law.

Mr. CHAWNER. Isn't it true, Mr. Schnitman, that there was a certain period provided and that just covered a period up to about the time this village project was undertaken, and I think there is some distinction?

Mr. SCHNITMAN. There is a limited period there. If the committee would like to have it in, I would be very happy to explore that.

Mr. O'CONNELL. I didn't understand the importance. If there were a simple explanation of these wide variances of taxes.

Mr. SCHNITMAN. If the explanation were on a basis of tax exemption, there is some limited provision for tax exemption, that I know, am very certain. Now shall we move on to the item of vacancy? We looked at the Knickerbocker Village and vacancy item there is inconsequential. You will note it is less than 1 percent, actually six-tenths of one percent, whereas in the case of the Brentwood Village, which is right here in the District, the vacancy is 24.5 percent of the total per room per month changed.¹ Somebody has to pay for that; the renter pays for it in each instance.

Mr. BLAISDELL. Does that account, Mr. Schnitman, in part for the lower operating cost in connection with Brentwood Village?

Mr. SCHNITMAN. I think it probably does have a—there is a traceable relationship there.

Mr. WILLIAMS. How long has that project been completed?

Mr. SCHNITMAN. That has been completed roughly two years. Shall we move on to the next item?

Mr. O'CONNELL. Yes.

Mr. SCHNITMAN. The last item on the bar in each instance is the item of gain or loss. Now you will notice in the case of the Knickerbocker Village, which has an average room rental of \$12.85, there is a gain of \$2.42, or 18.8 percent of the rental dollar, whereas, as I have already indicated, in the discussion of the tax item as to Carl Mackley Homes, Philadelphia, with an average room rental of \$12.50, the net loss is \$2.72 per room, which cost the renter 21.8 percent of his rental dollar. Are there any questions on that?

Mr. CHAWNER. Is the Carl Mackley Houses privately owned or what is the nature of the ownership there?

Mr. SCHNITMAN. That is a P. W. A. housing project; that was constructed under title II of the N. I. R. A.

Mr. CHAWNER. The equity interest, is it a private concern? It occurred to me there was a cooperative project.

Mr. SCHNITMAN. There is, I think, a limited-dividend corporation of some kind, private corporation.

Mr. WILLIAMS. Those projects that were constructed by the P. W. A. were always turned over to the U. S. H. A., weren't they?

Mr. O'CONNELL. Congressman, I think I can explain that. This was not constructed by P. W. A. This was constructed by a private limited dividend corporation and was financed by a loan by P. W. A. and is comparable in that way to the Hillside Housing project.

Mr. SCHNITMAN. It is comparable in every respect.

Mr. O'CONNELL. It is privately owned and operated and was financed by P. W. A. loan.

Acting Chairman REECE. These are all private projects, then?

Mr. O'CONNELL. Every one; that is right.

Acting Chairman REECE. With these various types of loans?

Mr. O'CONNELL. That is right. They are limited in their dividends in the first three cases because of the participation of the Federal Government by way of loans from P. W. A. and in two cases, of course, the Hillside and Knickerbocker Village, are operating under a State law which provides for the creation of limited dividend corpora-

¹ Under date of June 30, 1939, Miles L. Colean, assistant administrator of Federal Housing Administration, offered corrections to figure of vacancy in Brentwood Village; see "Exhibit No. 864", appendix p. 6486.

tions which operate under certain provisions of the State housing board, I believe it is, or State housing authority in New York, and in return for the limited-dividend privilege which the State housing authority exacts, I understand, there are certain concessions in the way of tax exemptions, and so forth.

I think that is a correct statement.

Mr. SCHNITMAN. That is true.

Mr. O'CONNELL. Are there any other questions on the cost figures which we have been discussing?

Representative WILLIAMS. It appears from this—am I correct—that two of these F. H. A. projects are operating at a profit, one of them at a loss.

Mr. SCHNITMAN. That is right.

Representative WILLIAMS. The one at Brentwood and Falkland are operating at a profit.

Mr. SCHNITMAN. And Elm Terrace in York is operating at a loss.¹

Representative WILLIAMS. Notwithstanding the fact that there is a 24.5 percent vacancy in Brentwood Village.¹

Mr. SCHNITMAN. Exactly, and of course that fact is traceable again to the item we discussed here a minute ago as to operating costs; their operating costs are very low. You see, their operating costs represent only \$2.85 out of a total rental of \$13.48 as against operating costs in the Elm Terrace Apartments of \$5.94.

Mr. O'CONNELL. The fact that they are operating at a profit is also attributable to some extent to the fact that they are able to charge a higher rent.

Mr. SCHNITMAN. Yes; they get a higher rent.

Mr. O'CONNELL. They get a much higher rent than they would have to get to show a profit with a smaller amount of vacancies.

Mr. SCHNITMAN. After all, the element of profit is the thing that determines this thing.

Mr. O'CONNELL. Are there further questions before we leave this?

Mr. SCHNITMAN. We may turn to this chart I have headed here "Financing."

(The chart referred to was marked "Exhibit No. 856" and appears on p. 5028. The statistical data on which this chart is based are included in the appendix on p. 5482.)

Mr. SCHNITMAN. I have taken the same six projects, and classified them as between mortgage and equity. You will notice that the Knickerbocker Village project has an equity of 15 percent, roughly, and a mortgage of 84 percent or 84.5. The Hillside housing project, 90 percent mortgage, and the remainder being equity. The Carl Mackley Homes; equity less than 6 percent, the remainder being mortgage. Brentwood Village project, 21 percent and a fraction is equity and the remainder is in mortgage. In the case of the Falkland Properties, a little better than 22 percent represents the equity, and some 77.5 percent or a little better the mortgage, and in the case of the Elm Terrace Apartments the mortgage represents some 78 percent or a little more and the equity a little better than 21 percent.

Mr. O'CONNELL. I think we probably covered that phase fairly well.

Representative WILLIAMS. Who is financing this Carl Mackley Homes?

¹ Under date of June 30, 1939, Miles L. Colean, Assistant Administrator of Federal Housing Administration offered corrections to figures of vacancy in Brentwood Village and operating loss of Elm Terrace, see "Exhibit No. 864," appendix, p. 5486.

Mr. O'CONNELL. That was financed by P. W. A.

Mr. SCHNITMAN. That was originally a loan from the P. W. A. under Title II of the N. I. R. A.

Representative WILLIAMS. In what shape was it? Who has that now, or do you know? Has it been negotiated on the market?

Mr. SCHNITMAN. It is a private corporation.

Representative WILLIAMS. I mean the mortgage.

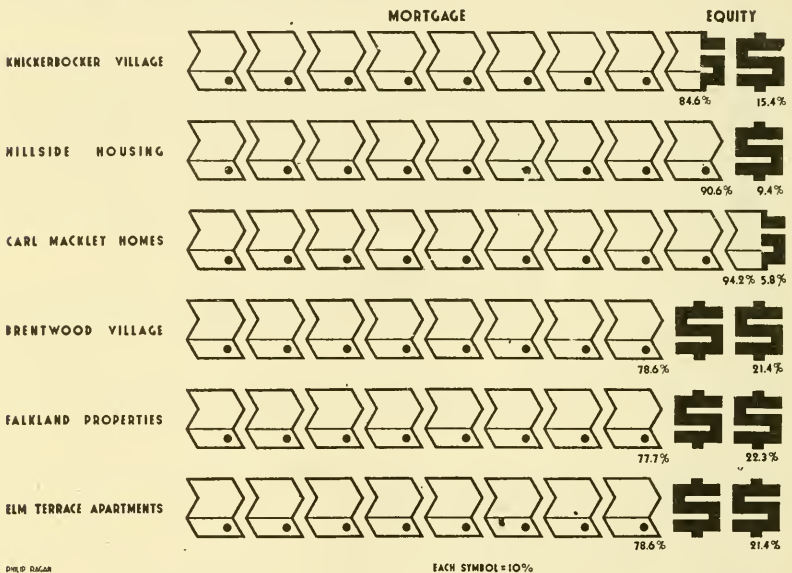
Mr. SCHNITMAN. The mortgage?

Representative WILLIAMS. Yes.

Mr. SCHNITMAN. I think, I would judge, that the mortgage may have been taken over by the Housing Authority.

EXHIBIT No. 856

FINANCING



Mr. O'CONNELL. I understand that the mortgage and the bonds which the mortgage secured were held originally by P. W. A. When U. S. H. A. was created, the mortgage and bonds were turned over to U. S. H. A. and they now hold the security evidencing this loan. The project is still being operated by the private limited dividend corporation which constructed it in the first instance.

Representative WILLIAMS. That would appear to be a rather narrow equity in that property.

Mr. O'CONNELL. It would seem so.

Mr. SCHNITMAN. I would certainly think so, very slim.

Mr. O'CONNELL. As I understand it, you have described to us the three different types of costs which we must differentiate between. In fact, I think for simplification we probably could say two, because the total development cost is the original total capital cost of the project ready for occupancy and what you refer to as housing cost,

what we have been referring to an annual costs, the other way of measuring the cost to the owner or renter, in your case the renter on the project. Which way would it seem to you would be the better way, we might say, of approaching the problem of cost in terms of the marketability of the product that we are assuming is to be sold, total cost or annual cost?

Mr. SCHNITMAN. I think the basis of what work I have done is that you have got to approach it from the annual-cost basis. My studies would lead me to believe that you can reach a greater market by reducing the annual costs than you can by reducing a similar amount percentagewise the development costs.

Mr. O'CONNELL. Of course, the two things are interrelated in that the development cost has an effect on the annual cost.

Mr. SCHNITMAN. That is correct.

Mr. O'CONNELL. Have you made any computations as to the effect on annual cost of reductions of various elements that enter into the original capital cost?

Mr. SCHNITMAN. Yes; I have.

Mr. O'CONNELL. You have a chart, I understand, on that.¹

Mr. SCHNITMAN. Yes. On the project for which very complete figures are available, that is the Hillside housing project in New York, in order to find out just what could be done to reduce costs to the renter, we have taken the figures of the Hillside housing project, which as I said are very complete, and applied a 20 percent reduction arbitrarily chosen to each of the items going into costs.

I think it might be well, before I describe that, to say at this time, because it might provoke questions that would save the time of the committee, that a cut of 20 percent in labor would represent a decline, a possible decline, without in anywise affecting profit, of 3.9 percent on the monthly rental; a cut of 20 percent in labor would bring in a 3.9 percent reduction, taking it on the actual performance figures of the Hillside housing project; a cut of 20 percent in materials would bring an additional 5.1 percent reduction in the annual cost to the renter; and a cut of 20 percent in the items of interest and depreciation combined would bring in an additional reduction possible to the renter of 8.1 percent. That might all be summarized in this way, that a cut of 20 percent in building costs, that is total development costs, taking each item separately as I have just done, plus a similar cut in all operating costs, could bring in a reduction in the case of the Hillside housing project in annual rentals of 27.3 percent.

Mr. O'CONNELL. Do you care to discuss the items in this chart in any more detail?

Mr. SCHNITMAN. Yes. Looking at this chart, the Hillside housing project, in New York, a chart of the effect of a 20 percent reduction of building cost on housing cost per room—

Acting Chairman REECE (interposing). How did you happen to make the chart on a basis of 20 percent reduction?

Mr. SCHNITMAN. There seems to be an opinion in the industry that anything short of a 20-percent reduction would be rather inconsequential to the renter. As a matter of fact, I have applied smaller percentages; and I am convinced, on that purely arbitrary basis, of the amount of saving to the renter.

Acting Chairman REECE. Is there any opinion in this industry as to how the 20-percent reduction might be effected?

have for the item of interest \$2.61 against \$3.34 on the actual operating figures of Hillside housing project. A 20-percent reduction in operation cost—perhaps I had been do it this way: I will enter this table in the record to accompany the chart. A reduction of 20-percent in land costs would mean a saving in interest charges of only 6 cents; a reduction of 20-percent in land costs would mean a saving of 4 cents in the item of taxes; or a total saving, by a reduction of 20 percent in land costs, to the renter of 10 cents per room per month.

A reduction of 20 percent in the item of labor costs would mean a saving in interest charges, which is an item you will recall included in the operating cost, in the cost to the renter, of only 24 cents; 14 cents for taxes, 10 cents on depreciation, or a total saving of 48 cents.

A similar horizontal reduction of 20 percent in material costs would mean a saving in interest charges which the renter has to pay of 31 cents per room per month, a saving of 19 cents on the item of taxes per month per room, and 14 cents in depreciation, or a total of 64 cents.

A reduction of 20 percent in the item of overhead and profit would mean a saving to the renter of 8 cents per room per month on interest charges, 4 cents per room per month on taxes, 3 cents per room per month on depreciation, or a total of 15 cents per room per month.

If you add that all up, it gives you a total saving, by way of a reduction in development costs, original development costs, that would be traceable to a corresponding reduction in the rental dollar, of \$1.45 per room per month.

On the other hand, if we apply a 20-percent reduction on the items of interest, taxes, and operating costs, we find a total saving in the case of interest of 67 cents per room per month; in the item of taxes, 44 cents per room per month, and the operating cost, 89 cents per room per month. That would reduce the average room rental from where it is at \$11.13 per room per month to a possible \$9.80, without in any wise affecting profit or equity.

Mr. O'CONNELL. Mr. Schnitman, I think "Exhibit No. 857," which has been put in the record, is sufficiently clear as indicating the effect of 20-percent reduction, unless some of the committee have some further questions they wish to ask in connection with it.

Acting Chairman REECE. Is there any question?

Mr. O'CONNELL. There are no questions? There is really only one further question I would like to ask, Mr. Schnitman. It is rather a general question and may call for something which is in the nature of a personal opinion; but if you have been following the recent testimony, one item was to the effect that the volume of business during the past decade has been on substantially half or less than half the volume of construction during the twenties. In view of what you have just said about rental housing and the importance of the rent, of the rental dollar and the annual cost, as against original cost, what do you consider the most important deterrent to the resumption of a normal volume of rental building? Is that too broad a question for you to answer?

Mr. SCHNITMAN. Well, that is something that one might spend days and days on and probably get nowhere with it. I would say that, first off, one must consider in the discussion of the fact that the building industry, more especially residential building, has been so

slow to emerge or even to approach emergence from the depression, or even to approach the previous peaks of the twenties, is largely a historical fact. There never has been a time, historically, where the cycle that followed, the one in which a new peak was made, has attained to the amplitude of that cycle containing that new peak, and I think it is well to recognize that fact, because if we are looking ahead with any view to getting up to the amplitude of the twenties without providing the release from existing rigidities which were obviously operative even in the twenties, we are looking for something that is not likely to happen.

Specifically, figures were thrown out here that we had 937,000 dwelling units produced in the year 1925. Doesn't make a whole lot of difference whether it was 937,000 or any other figure of that general magnitude. I think it is idle for us to expect that we can get back to 937,000 with the rigidities that have frozen the industry in the face of the historical precedent which I have just described.

Now what are some of these rigidities? We have frozen real estate on a fictitious level. We find our great institutions, banks, savings and loan associations, our life companies, who are very active in financing real estate, are holding large quantities of foreclosed properties. The best estimate I have of that is a total of, roughly, \$4,000,000,000 of residential properties still held by financial institutions, inclusive even of the H. O. L. C.

Now some way must be found to liquidate those properties, particularly since it now appears, at least to me, that we are at least at the midway point and probably lots further beyond the midway point in the current building cycle.

Mr. O'CONNELL. By that you mean you anticipate an expansion in building?

Mr. SCHNITMAN. I anticipate a further expansion, but the upward phase of residential building started in let us say '34. There never has been a time in history where we have had more than 7 years of continuous rise and this year marks the sixth continuous rise, and with minor unimportant interruptions in residential building. Now, true, we are still miles away from the levels of the twenties.

Mr. O'CONNELL. May I interrupt you just a minute? I am interested in the historical development of this psychological proposition. I am not familiar with the subject, but could you tell me how much of recorded history we have as regards the waning and waxing of the building booms?

Mr. SCHNITMAN. Well, on very imperfect data it is possible to carry the historical back for a century. The data are quite imperfect prior to the beginning of the twentieth century. As a matter of fact, not too perfect even prior to 1910.

Mr. O'CONNELL. The only one I had even seen fairly well charted was the one in the twenties was the reason I asked.

Mr. SCHNITMAN. Yes. Now characteristically the cycle has elements that are different from the business cycle. That I think is well known to all of you. The cycle usually runs 18 years, that is from top to top or bottom to bottom, and the rising phase usually is of longer duration than the declining phase; the rising phase usually consumes about 11 years.

Now there may be some connection between that rising phase of 11 years and the sunspot theory that Professor Stewart at Princeton

has just been digging up again, of an inverse relationship, but be that as it may, I don't see how we can fly in the face of that history unless we somehow methodically plan to release ourselves from the rigidities and more especially is that necessary today than ever before in our history because the country no longer is growing at the same rate as it has in the past.

Now here are institutions carrying foreclosed properties, hoping against hope, in my opinion, for an opportunity to liquidate foreclosed properties at or better than acquisition costs. Now there are \$4,000,000,000 worth of residential properties to be so liquidated. Now there is provision for liquidation of those properties. At least so far as the life insurance companies are concerned, in the New York State insurance law. That law provides that all property acquired under foreclosure by the life companies that is not needed for its own business must be liquidated within 5 years from date of acquisition, but there is a joker in that law and that joker is this, unless the Superintendent of Insurance issues a certificate to the inspector on the grounds that such a liquidation would be injurious to the company.

Now, I studied for two of the larger companies their portfolio of residential properties under foreclosure. These two companies are carrying today about \$25,000,000 of residential properties where the unit value of acquisition cost is \$25,000 and over. I will say this, that their total holdings of residential property far, far exceeds 25 millions because it includes properties under the \$25,000 classification.

Now those properties were all acquired prior to 1934 and I wouldn't feel on this subject the way I do today if we were not so far along in this construction cycle. I might say that it is probably later than we think, and you say, "Well, why is that important?" And to that I would answer in this way, if the properties now held by our institutions under foreclosure were to be put on the market it would tend, in my judgment, to keep original development costs—as we have just defined them—on new projects well in line because of the competitive element.

Old properties, obsolescent properties coming on the market at a price somebody will buy it for. Now I realize that it might mean a hardship for some of these institutions, but I think it is high time that we reckon with the facts as they are, and I can't for the life of me come to any conclusion that would warrant an opinion we can have any larger further resumption in residential building until we find some way methodically to liquidate—I don't mean it has to be done on a Saturday afternoon, but a plan, something that will operate let us say over the remaining years of the cycle.

It might be 3 or 4 or 5 years off. The upward phase.

Mr. O'CONNELL. May I interrupt you just a moment? If I understand you correctly, then, you believe that the large amount of foreclosed properties held by institutions operate as a deterrent to the construction industry and that an orderly liquidation of them—

Mr. SCHNITMAN (interposing). Very distinctly, I am of that opinion.

Mr. O'CONNELL (continuing). Would act as a wholesome influence and might result in stimulation?

Mr. SCHNITMAN. Yes, I do.

Mr. O'CONNELL. By projecting a competitive element into the situation and acting to reduce or to control costs of new projects?

Mr. SCHNITMAN. Exactly. Now there is an obverse side to that and it is entirely reconcilable with this point of view that I have just left, I think, and that is that I am wholeheartedly in accord from a sheer economic standpoint, if not indeed from the social angle, with the intent and purpose of section 20a, article I of the New York insurance law which has to do with the granting of powers to insurance companies to build, own, and operate for rental income, rental properties of the type the Metropolitan Life is just erecting in the Bronx.¹

To me that is one of the most wholesome developments that has occurred in recent years. It is really a revival of a law that went into discard after the rental commissions and shortages were met, when commissions went out and shortages were met in the early twenty's; a revival of that original provision, and I am hopeful that that development will carry further.

Now I said before that it might appear that that is irreconcilable with the point of view I made as to their liquidation of their existing properties. To me it isn't irreconcilable. I think it is in complete harmony. The property that the Metropolitan Life is constructing is situated on a site in New York City in the Bronx of 126 acres, roughly a fifth of a square mile to house ultimately some twelve or thirteen thousand families, a community over which they can control—I don't mean control in a sinister sense—the factors that make for obsolescence, rapid obsolescence, and deterioration and slums. Now that isn't the case with the properties that they have under foreclosure.

They are widely separated, widely diffused individual parcels that have been milked dry by equity holders and now had to come back to the institutions, and the institutions can't make most of those properties pay. I happen to know of a property in New York of some 115 apartments which carries today an occupancy ratio of about 99 percent on which the insurance company that owns that building is showing just a little better than 3 percent on acquisition cost.

Mr. O'CONNELL. Then I understand you to believe that there is a large field for large-scale rental projects constructed on an equity ownership basis?

Mr. SCHNITMAN. That is really a conviction that I have, after a thorough-going study of this problem.

Mr. O'CONNELL. I have no further questions.

Mr. CHAWNER. Mr. Chairman, I had a question on exactly that point. Congressman Williams a moment ago noted that on this Carl Mackley Houses the equity interest was only 5.8 percent, but at the same time that project was losing about 22 percent, apparently on an annual basis.² I suppose this is for a particular year, and I wondered if there might not be some relation between those two situations, the fact that we have a project in which the equity ownership is so very small that there isn't very much incentive to careful management, and it is entirely conceivable that might be in part responsible for the substantial loss shown here, and that I suppose it is quite possible, if that continues, that the mortgage obligation on the property will be thrown back on the United States Housing Authority, and I was wondering if it might not contribute to the question the Congressman raised, if in the record we could have some information on the nature of that ownership of that property.

¹ In this connection see also Hearings, Part IV, pp. 1240-41, and *infra* p. 5134 et seq.

² See "Exhibit No. 855," *supra*, p. 5018.

That stands out as being an unusual project in that respect. The Federal Government apparently having made a loan of 95 percent on this particular project. That is unsatisfactory in point of view of the operation of the project.

Mr. SCHNITMAN. Along your line of discussion, Mr. Chawner, I might even add this thought, something I have given considerable thought to; personally, I am convinced that the F. H. A. type of large-scale rental housing project in the longer run is likely to prove out much more satisfactorily than the small-house type for the same reason that I indicated with reference to the Metropolitan housing projects.

Mr. O'CONNELL. That is, that you are able to minimize the neighborhood obsolescence?

Mr. SCHNITMAN. Which is a very vital element, and as we approach this cycle, or the crest of the cycle, I think it is a fair assumption to say that the bulk of the loans to be guaranteed by the F. H. A. on small houses will be made at the top of the cycle or near the top. It might be drawn in a chart with an inverted pyramid, standing, if you like, on 1935, when the first loan was made, and as you approach the top of the cycle, sometime we will say after 1940, you will find the bulk of the loans and perhaps the poorest loans on the small-house type made right at that point where there is no control over the neighborhood.

Mr. BLAISDELL. You are suggesting, Mr. Schnitman, that possibly neighborhood control in connection with small-house development might be as beneficial as connected with a larger development?

Mr. SCHNITMAN. Very decidedly.

Mr. CHAWNER. On this point, Mr. Chairman, I would like to add to the record a statement as to the nature of the ownership of this company.¹

Mr. O'CONNELL. Would it be possible to get that?

Mr. SCHNITMAN. I will get it.

Mr. O'CONNELL. The witness will obtain information about the Carl Mackley Homes and insert it in the record at a later point.¹

Mr. WILLIAMS. What income group was this apartment house being built by the insurance company to accommodate?

Mr. SCHNITMAN. Well, that is called the middle income group; it is not the type of group over which there is so much concern. The rental scale as I understand it is figured at about \$15 per room per month.

Mr. O'CONNELL. What you call the middle income group is not what I was calling the middle income group, I don't believe, because when I referred to middle income group I was thinking of persons or families having an income between \$1,000 and \$2,000 a year, and my impression is that at rent approximating \$15 a room you probably wouldn't get an income group below \$2,000 a year.

Mr. SCHNITMAN. I think that is correct.

Mr. O'CONNELL. You mean from \$2,000 on up?

Mr. SCHNITMAN. Two thousand up.

¹ Mr. Schnitman subsequently submitted the following statement regarding the ownership of the Carl Mackley Homes: "The Carl Mackley Homes are owned by the Juniata Park Housing Corporation, a limited dividend corporation organized under the laws of Pennsylvania. It is said that the majority of the stock is owned by members of the Amalgamated Hosiery Workers Union of Philadelphia. The total investment in the Carl Mackley Homes is \$1,092,783, of which the P. W. A., under authority of the National Industrial Recovery Act, Title II, loaned, on the security of a first mortgage note, \$974,814, the P. W. A. also purchasing one \$10 share of stock as a qualifying share to sit on the board of directors. These securities are now held by the United States Housing Authority."

Representative WILLIAMS. I understood you to say that one of the rigidities that you spoke of was a fixed value of real estate on, I believe you used the word "fictitious" value. Is that right?

Mr. SCHITMAN. Well, maybe the choice of word was bad. What I mean by fictitious—

Representative WILLIAMS (interposing). I was wondering what you meant by that.

Mr. SCHNITMAN. Value, so far as rental property is concerned, is predicated upon, or should be upon, what it will earn. Now rental properties, if one is to make adequate allowance for depreciation, adequate allowance for vacancies in old properties and things of that sort, can be construed as being fictitiously valued, as these properties can be construed as being fictitiously valued where the rate of return now is 3 or even 4 percent on total present cost.

Representative WILLIAMS. Do you think the land values are frozen at too high a value now?

Mr. SCHNITMAN. That may not be true generally, but certainly it is true in many, many localities.

Representative WILLIAMS. I was also interested in your statement about the disposition of the acquired properties by the different institutions; as to what they do with them of course is a matter of individual and personal opinion and judgment, as I see it, and I don't know how we are going to control it.

Mr. SCHNITMAN. Well, I know one way of controlling it.

Representative WILLIAMS. All right; I'd be glad to hear that.

Mr. SCHNITMAN. I think somehow or other we must—and I am not one that likes laws; I think we could get rid of some of them, but I do think we ought to have a law requiring all appraisals to be matters of public record. Now that isn't novel with me; that is the system in Mexico.

In the good old days, in the twenties, appraisals were made from the running boards of automobiles. I know. My home here in Washington was appraised that way. The appraiser never went inside of the home.

The fact that it is a matter of public record does not necessarily mean that people will look at it. I do think that it would operate as a preventive measure on runaway appraisals, which in the last analysis is the basis of the mortgage.

Mr. O'CONNELL. I don't think that is the answer to Congressman Williams' question. I think he is interested in knowing what could be done, thinking in terms of this committee, to provide for what you refer to as an orderly and speedy liquidation of overhanging foreclosed properties in the hands of lending institutions. Is that correct?

Representative WILLIAMS. Yes, that is right.

Mr. SCHNITMAN. We might start right with our own Home Owners' Loan Corporation, which is carrying today some 90,000 properties that it has foreclosed. Now I must say that they have made every effort to liquidate those properties. They have liquidated a sizeable number of properties. They have foreclosed something over 150,000. But in most instances the liquidation to the sale of those properties has been at or just slightly under acquisition costs.

Now we might, as to the institutions, invoke the insurance law with reference to the insurance companies, because we are so far advanced now in the building cycle, on the up phase of the cycle.

Representative WILLIAMS. What, in your judgment, would be the effect if they were practically all turned loose on the market, these 4 million that you speak of, if they were disposed of?

Mr. SCHNITMAN. Well, that certainly is a good question. In my judgment if that turning loose, as you call it, is extended over a period of, say, 3 to 5 years, I can't help but believe it would have a beneficial effect. Say if these properties were revalued on a basis where, with a nominal vacancy and with going operating costs they could have a prospective yield to the buyer of, let's say, 6 percent, we would find plenty of buyers, and the moneys derived by the institutions from the sale of the properties could be reinvested in these large-scale equity type houses over which they would have control against neighborhood deterioration.

Representative WILLIAMS. It is your opinion, then, if all these residential properties that are owned by the various institutions were turned loose it would stimulate building rather than retard it.

Mr. SCHNITMAN. Exactly. I think that point of view is perhaps an unorthodox one.

Representative WILLIAMS. Yes; it is to me.

Acting Chairman REECE. As I understand, you stated earlier that you thought only the large unit projects financed by the F. H. A. would eventually prove successful, and if that is the case, what is your suggestion with reference to building the small units in communities where the large unit projects are not in demand?

Mr. SCHNITMAN. Well, I am not one that is going to take a definite stand that the small house doesn't have a place in our life; it does, a very distinct place, but I do take a definite stand on the question of what I would class economic soundness, and I believe that the large scale rental housing project, if properly conceived, is economically sounder in the large than in the small house type.

Acting Chairman REECE. I assume you are referring to situations in the larger cities, aren't you?

Mr. SCHNITMAN. Essentially in the larger cities. Of course that is where the large scale rental housing projects for the most part under the F. H. A. are being built.

Acting Chairman REECE. There is a good deal of our country located outside of the four or five large cities.

Mr. SCHNITMAN. Oh, yes; you are entirely right, but we are becoming as a people increasingly more dependent upon employment and shifts of employment, and somewhere there is a limit as to how far home ownership as such can go.

Representative WILLIAMS. Don't you think home ownership ought to be encouraged rather than home rental?

Mr. SCHNITMAN. I think it should, within limits. But you see the thing that I am afraid of is as we approach the crest of this cycle, it may be 3 or 4 years off, our terms for buying a home will have been made so liberal that we will have a large number of relatively poor risks by the time the building cycle, historically and otherwise, may begin turning downward.

Representative WILLIAMS. You think we ought to reach the limit of building as we did during the twenties? Do you think we were overbuilt during that period?

Mr. SCHNITMAN. Well, we speak about being overbuilt—I think we must differentiate between quantitative and qualitative pretty much as we must do when we speak of shortages.

Representative WILLIAMS. Building during that period averaged about 700,000, as I recall it.

Mr. SCHNITMAN. That is right.

Representative WILLIAMS. Do you think that is too many? Do you think that we ought to approach that or go beyond that number now?

Mr. SCHNITMAN. If I could see a visible means of increasing first the national income and its component, the individual family incomes, I would feel free to say that we could easily exceed best previous peaks in residential building. To put it another way, to borrow a mathematical term, residential building is essentially a function of the national income. At a level of about 40 billions in the national income there was virtually no residential building, and when the national income had increased by 10 billions the increase in residential building was so slight that it was hardly noticeable. It was not until we had crossed 50 billions on the recovery move that there was any appreciable rise in residential building, percentagewise. If we could get back to a national income of 80 billions, 90 billions, we could get a new high in the national income, it would be a very simple matter to expect and have a volume of residential building that would exceed anything we have seen in the past.

Acting Chairman REECE. Are there any further questions?

Mr. O'CONNELL. I should like to make one remark relative to what Mr. Schnitman had to say about the comparison between the large scale rental projects financed by F. H. A. and the small individual houses financed by that organization. This will be covered more in detail later on, and I am not presuming to speak for F. H. A., but it is my understanding that they are cognizant of the locality obsolescence feature and they do have locality standards in connection with their individual home ownership projects, and to that extent at least I wouldn't want the committee to get the inference from Mr. Schnitman's statement that the problem of neighborhood or locality obsolescence can only be taken care of in the large-scale rental projects. I am not attempting to testify in connection with it. I merely wanted to point out that the F. H. A. are familiar with that problem and we will go into that a little more at a later date.

Representative WILLIAMS. I want to say in response to what you have said and what I said a while ago, that I am very sure the F. H. A. takes into consideration primarily the location and the future development of the community in which the individual home is built as well as the large scale project.

Mr. O'CONNELL. I think it is probably Mr. Schnitman's view that that is a more difficult problem possibly in the small individual home, in that you cannot control to the same extent the locality that you could in a large-scale rental project where the rental project itself is the locality. Isn't that correct?

Mr. SCHNITMAN. Yes; that is correct.

Mr. O'CONNELL. I have no further questions.

Mr. BLAISDELL. Mr. Schnitman, you have just testified to the fact that you believe that the holdings of these institutions are being overpriced as far as selling is concerned. I assume that the companies would be very happy to get rid of what they have got.

Mr. SCHNITMAN. Oh, there isn't any doubt about that.

Mr. BLAISDELL. And it is only a question of price.

Mr. SCHNITMAN. That is it exactly; they will sell at a price.

Mr. BLAISDELL. I assume also that the projects which they are holding—I call them projects, the apartments, the houses—are also occupied.

Mr. SCHNITMAN. Yes, sir.

Mr. BLAISDELL. And I assume also that the rents which they are getting for those projects are what the market will bring.

Mr. SCHNITMAN. Exactly.

Mr. BLAISDELL. That same market would be there entirely irrespective as to whether they sold the properties or whether they held them, would it not?

Mr. SCHNITMAN. That is right.

Mr. BLAISDELL. And you are suggesting, then, that the insurance companies, the banks, and the building and loan associations have the initiative to build anew where purchasers of these properties do not have the initiative to build anew for rental purposes.

Mr. SCHNITMAN. Right.

Mr. BLAISDELL. I am trying to interpret your statement, and that this situation of ownership and holding for a price on sale is the retarding factor in the present situation.

Mr. SCHNITMAN. Well, it isn't the only retarding factor:

Mr. BLAISDELL. No; I appreciate that, but it is a serious retarding factor.

Mr. SCHNITMAN. Yes; I think it is.

Mr. BLAISDELL. If these companies were willing to sell at a price it would be again a market matter, would it not?

Mr. SCHNITMAN. Yes.

Mr. BLAISDELL. They, however, are willing to take 3 percent instead of—well, they can't get any better than 3 percent any place else. Is that correct?

Mr. SCHNITMAN. That is right. On the Metropolitan Life Insurance property, which is a wholly owned equity property, they got some 7 or 8 or I think in their best years even 10 percent.

Mr. BLAISDELL. There is no advantage from their standpoint in getting rid of something at 3 percent on its present valuation, as you said, or its acquisition cost.

Mr. SCHNITMAN. Unless they reinvested that money elsewhere.

Mr. BLAISDELL. Well, they reinvest a lower sum and get a larger percentage.

Mr. SCHNITMAN. That is right.

Mr. BLAISDELL. It is all the same as far as they are concerned, so from the standpoint of the companies there would be no advantage in doing it.

Mr. SCHNITMAN. Well, the same sum invested in equity housing, which I believe ought to be permitted to a limited extent, for banks too, would bring a far higher return than that sum of money tied up in foreclosed property brings today.

Mr. BLAISDELL. That is the net earnings as far as the company is concerned in absolute amount—

Mr. SCHNITMAN. Absolute amount.

Mr. BLAISDELL. Would be larger than what they now get from the present investment.

Mr. SCHNITMAN. That is right. Take a specific project, a theoretical project, of \$100,000, where their net return, let us say, is \$3,500

3.5 percent. A similar amount, \$100,000, that would be too small to build a project to control neighborhood deterioration, but we will use that as an index, might bring in \$7,000 or \$8,000.

Mr. BLAISDELL. Yes; but they are not going to get the \$100,000 from the sale of property.

Mr. SCHNITMAN. No; all right. Now if they sold the property——

Mr. BLAISDELL. They would sell it for \$75,000.

Mr. SCHNITMAN. If they sold the property for \$75,000, in my judgment the reinvestment of that fund would still bring a larger net return in a new project than that which they are getting now holding it for a higher price, or holding it for sale at acquisition cost.

Mr. BLAISDELL. I assume that you would apply the same logic to the H. O. L. C. holdings?

Mr. SCHNITMAN. Well, the H. O. L. C. is essentially in a different position.

Mr. BLAISDELL. I understand they will not go in and buy property.

Mr. SCHNITMAN. They won't go in; we hope not.

Mr. O'CONNELL. Incidentally, Mr. Blaisdell and the rest of the committee, I hate to be saying we are going to do things at a later date, but a number of these things are going to be done at a later date. We do expect to produce a later witness who will give us some information about the Metropolitan experience, on this point of equity financing which Mr. Schnitman has touched on and which the committee has inquired about.

Acting Chairman REECE. If there are no further questions, thank you very kindly.

What is your procedure for tomorrow?

Mr. O'CONNELL. Tomorrow and Friday we expect to call witnesses who will discuss with the committee one of the most important single elements in cost, particularly annual cost, that being the financing charges in connection with either home ownership or rental houses.

The witnesses will be, first, Mr. Altman, of the Securities and Exchange Commission, who will give the committee some general information about the sources of mortgage money and the relative importance of the various sources of mortgage money and also equity money, of course, and some information relative to recent fluctuations in interest rates.

After Mr. Altman we will have Mr. Rogers, vice president of the Prudential Life Insurance Co.; Mr. Bodfish, the executive director of the United States Building and Loan League; and Mr. Bruere, president of the Bowery Savings Bank.

I doubt if we will finish with all of the witnesses I have indicated tomorrow. I think that tomorrow and Friday morning we should be able to finish with the witnesses I have indicated, and that is all we have planned for this week.

Acting Chairman REECE. The committee will stand in recess until 10:30 tomorrow morning.

(Whereupon, at 4:35 p. m., a recess was taken until 10:30 a. m. Thursday, June 29, 1939.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, JUNE 29, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Wednesday, June 28, 1939, in the Caucus Room, Senate Office Building, Representative B. Carroll Reece, presiding.

Present: Representative Reece (acting chairman), Messrs. Henderson, Lubin, O'Connell and Brackett.

Present also: Edward J. Noble, Under Secretary of Commerce; Hardwick Stires, and Lowell J. Chawner, Department of Commerce; Willis J. Ballinger, Federal Trade Commission; Ernest Meyers, Department of Justice; Theodore J. Kreps, economic consultant to the committee; Thomas C. Blaisdell, Securities Exchange Commission; and Peter A. Stone, co-ordinator of construction studies for the committee.

Acting Chairman REECE. The committee will please come to order. Are you ready to proceed, Mr. O'Connell?

Mr. O'CONNELL. I am, Mr. Chairman. Yesterday the committee heard testimony on the elements that enter into the cost of dwelling accommodations, both rental and owned. A distinction was drawn between the original capital cost of such accommodations and the annual cost or consumer's cost. It was pointed out from the standpoint of either the owner or the renter, the amount of his fixed monthly obligation is a very important, if not, indeed, the dominant factor in determining whether adequate dwelling accommodations are within his reach.

Some comparisons were made of the effect of comparable percentage reductions in the major elements of capital cost, labor, and material, and the cost of finance. One witness indicated from the standpoint of monthly fixed charges for home ownership a 20-percent reduction in the cost of the finance, meaning the principal and interest payments, would effect more of a reduction in the annual cost than would a 20-percent reduction in labor and materials combined. With that as a background it is our intention today to investigate or to examine the finance cost as one of the major elements that enter into the problem of home ownership, with a view to ascertaining what, if anything, can or should be done about reducing that portion of the cost of dwelling accommodations.

The first witness this morning who will give us a background on the general picture of the mortgage market will be Dr. Altman, of the Securities and Exchange Commission.

Acting Chairman REECE. I believe Dr. Altman has been sworn. Mr. O'CONNELL. He has already been sworn.

It was some time ago you testified. Would you mind giving your name and position to the reporter again?

TESTIMONY OF DR. OSCAR L. ALTMAN, MONOPOLY STUDY, SECURITIES AND EXCHANGE COMMISSION, WASHINGTON, D. C.**DISTRIBUTION OF MORTGAGES AND SOURCES OF HOME FINANCING**

Mr. O'CONNELL. Dr. Altman, can you give the committee any information on the proportion of private indebtedness represented by mortgages on one- to four-family nonfarm homes?

Dr. ALTMAN. There have been various studies since 1930 covering the long-term debts in the United States, one element of which consists of the long-term debts on one- to four-family nonfarm homes. In 1930 it was estimated by Dr. Horton, in his volume on Long-Term Debts in the United States, that the estimated long-term debt, long-term private debt, was 84½ billion dollars. Of this total, 22.3 billions, or 26 percent, represented mortgages on nonfarm homes.

In 1934 total private long-term debts had been reduced to 74.9 billions. Of this total, 17.7 billions, or 24 percent, represented nonfarm mortgages.

By 1937 the private long-term debt stood at 70.3 billions, of which 17.3 billions, or 25 percent, represented nonfarm home mortgages, or in other words, in summary, one may say that throughout the period 1930 to 1937 the mortgage indebtedness on one to four-family nonfarm homes constituted about one-fourth of the total private long-term indebtedness of the United States.

Mr. HENDERSON. In that total of private debt, what is included?

Dr. ALTMAN. They would include all debt, all nongovernmental long-term private debt, which would include the debts of individuals and of corporations.

Mr. HENDERSON. That would not include the insurance companies' obligations to the insured, or a bank's obligations to its depositors, or anything like that?

Dr. ALTMAN. No; it would not.

Mr. HENDERSON. Which was include, of course, in later studies. The Twentieth Century Fund did give a connotation of debt to that.

Dr. ALTMAN. Yes; they did.

Mr. HENDERSON. But this is in terms of what might be called the older concept of debt, mainly the private debt of corporations and individuals.

Dr. ALTMAN. That is right, Mr. Henderson.

Acting Chairman REECE. That doesn't include debt or obligations represented by securities?

Dr. ALTMAN. It would include them, yes; if a corporation had issued 5-year bonds, let us say, those 5-year bonds would be included in the long-term debt. So that you would have included in this total all the long-term debts of corporations whether they were represented by debenture bonds or first-mortgage bonds or long-term notes.

Mr. O'CONNELL. Dr. Altman, have you any information as to what percentage of owner-occupied and rented residential properties are mortgaged?

Dr. ALTMAN. It is generally held that about one-half of all the residential properties in the United States, urban residential properties, are subject to mortgage. The proportion of residential property subject to mortgage varies very much in different areas of the country. The survey of urban housing made in 1934 by Mr. David L. Wickens indicated that the highest percentage of mortgaged residential

properties is found in the New England and Middle Atlantic States. In New England, for example, as of the first of January 1934, Mr. Wickens found that almost 69 percent of the total owner-occupied residences were subject to mortgage, and almost 54 percent of the rented residential properties were subject to mortgage.

As you leave New England and the Middle Atlantic States, the percentage of mortgaged properties tends to fall. Mr. Wickens discovered that the lowest percentage of owner-occupied residences subject to mortgage was found in the Mountain States where 49 percent were subject to mortgage. Curiously enough, the lowest percentage of rented property subject to mortgage is found in the East South Central States, but there is tremendous variation in different areas of the country. I think, however, that for the general picture one may accept the commonly held belief that about one-half of the residences in cities are subject to mortgage.

Mr. O'CONNELL. Have you any figures on the value of the outstanding mortgage indebtedness on these homes at the present time, or any comparatively recent time?

Dr. ALTMAN. The volume of mortgages on one to four-family nonfarm homes (and I would like to confine myself to this category for the next few moments) was 17.3 billion dollars in 1937. It was 21.7 billion dollars in 1929, and these two totals are summarized in a chart which was introduced into the record some 4 or 5 weeks ago by Professor Davenport in his testimony for the Securities and Exchange Commission in the investment banking hearings.¹

In general, the course of mortgage indebtedness in the United States on one- to four-family nonfarm homes has been as follows: It was about \$9,000,000,000 immediately prior to 1920; it showed a steady increase through the decade of the twenties and reached a peak of \$22,300,000,000 in 1930. The mortgage indebtedness declined steadily after 1930 and reached a low of 17.3 billions in 1937. The data for 1938 are not yet available in final form, but they indicate that there was an increase of something like \$300,000,000,000 in the outstanding mortgage indebtedness in 1938, so that the estimate would be an outstanding mortgage debt of 17.6 billions in 1938, as of the end of the year.

Mr. O'CONNELL. What are some of the factors that are responsible for the decline of mortgage indebtedness between 1930 and 1937?

Dr. ALTMAN. I think we may probably summarize the factors responsible for the decline of mortgage indebtedness after 1930 under five headings.

In the first place, we had a decline in new construction of this particular type of property. In 1929, for example, the estimated value of residential construction—and this is a somewhat broader category than the one- to four-family nonfarm homes that I was discussing previously; I may add that I have to discuss the broader category because the data for the narrower category are not readily available—was \$3,000,000,000. The value of residential construction was \$390,000,000 in 1933, so that from 1929 to 1933 the value of residential construction fell from \$3,000,000,000 to \$390,000,000. The value of residential construction increased in the years following 1933, and in 1937 the value of residential construction is estimated to be about \$2,000,000,000 and in 1938 about \$1,700,000,000.

¹ See "Exhibit No. 626", Hearings, Part IX, p. 4094.

Then with such a decline in the value of residential construction you find that there is no need to extend mortgages on new construction and at the same time the owners of existing property amortize and pay off their mortgages bit by bit so that you have a second factor entering into the picture, namely, that during the 7-year period some of the holders of the outstanding mortgage debt pay off the mortgages outstanding as of 1930.

A third factor which would tend to explain the decline in the volume of outstanding mortgage indebtedness on one- to four-family nonfarm homes, follows from the transfers of real estate to the mortgagees, either through voluntary deed or through quitclaim deed or through foreclosure. Between the end of 1929 and the end of 1937 it is estimated that the value of one- to four-family nonfarm homes owned by financial institutions increased from \$335,000,000 to 2.6 billion dollars, or in other words the financial institutions, between 1929 and 1937, acquired one- to four-family nonfarm homes to the extent of a book value of about 2.1 billion dollars.

In addition you have other classes of holders of mortgage debt as of 1930, who acquired properties which are not included in the figures I have just given. Individuals, for example, acquired properties during the same period but we have no data on the amount of property that they acquired during this period. On the whole, I should suppose that it is probably safe to say that probably about 2½ million dollars of debt on this particular type of property was extinguished between 1929 and 1937 as a result of transfer to the mortgagee.

A fourth factor in the situation is the reduction of the face value of the debt on these types of property by composition agreements between the mortgagors and mortgagees. For example, the H. O. L. C. made something over 1,000,000 loans totaling 3.1 billion dollars. It is estimated that in the process of transferring the loan from the original holder to the H. O. L. C. there was an estimated reduction in the principal or the face of the mortgage amounting to about 7 percent of the original debt, or to put this in monetary terms, it is estimated that there was a reduction of about \$200,000,000 in the principal or face value of the mortgage indebtedness.

Mr. O'CONNELL. The mortgage indebtedness would include all mortgage indebtedness?

Dr. ALTMAN. That would include this mortgage indebtedness the H. O. L. C. acquired from the previous holders of the debt.

Mr. O'CONNELL. Would another way of putting it be that would represent the amount of mortgage indebtedness extinguished so it would include second mortgages?

Dr. ALTMAN. I think this would refer simply to first mortgages.

Acting Chairman REECE. Are you pretty well satisfied with the estimates with reference to the reduction in debt in that respect?

Dr. ALTMAN. You mean the reduction of debt through the process of transferring mortgages from previous holders to the H. O. L. C.?

Acting Chairman REECE. Yes.

Dr. ALTMAN. I haven't done any of this work myself, Congressman Reece; I have simply taken this from what I take to be the best available sources.

Acting Chairman REECE. One thing that prompts the inquiry on my part is the fact that as I understood the situation, the H. O. L. C., when a home was transferred in many instances required the owner

to improve the property; that is, it had been permitted to fall into a state of bad repair and quite properly it was thought that before the H. O. L. C. made a new loan that it should be put in a state of good repair, which necessitated in those instances increasing the loan rather than decreasing it, increasing the mortgage rather than decreasing it.

Dr. ALTMAN. I think that is right, except that the figures that I have offered for the record here would take account of the fact that some of the mortgages may have been increased through the process you have described. That is to say, there is a net reduction of about \$200,000,000 after taking into account all the factors that operated in the situation.

Mr. HENDERSON. That means, Dr. Altman, that in this country we chose to substitute the Government as the creditor and, except for about 7 percent extinguishment, we did take over the amount of the outstanding indebtedness and that was carried in the new mortgages by the Federal Government's activities?

Dr. ALTMAN. That is right, Commissioner Henderson. There was a transfer of debt rather than an extinguishment of debt.

Mr. HENDERSON. I wonder if you are familiar at all, just as a diversion, with the experience of any other countries confronted with similar situations. I wonder if you know the extent to which there have been drastic reductions of the mortgage indebtedness outstanding at the time there were new financial arrangements entered into.

Dr. ALTMAN. I'm sorry; I do not.

Mr. HENDERSON. I do know, of course, that Canada, particularly with its farm mortgages, did set up means by which the face amount of the mortgage under certain circumstances was drastically reduced, and I am sure that was followed in several other countries, but in this country the face value of the mortgages pretty generally, except for such reductions as you have noted, were carried over when the Government interposed as creditor.

Dr. ALTMAN. That's right.

Acting Chairman REECE. Another circumstance which makes it appear to me improbable that there could have been a very considerable reduction in the amount of mortgage was the fact that the H. O. L. C., as I understand, adopted the policy of making loans only on distressed property, and if the owner was behind on his payments it would not appear likely to me that in many instances it would be able to reduce the amount of the mortgage, unless by way of compromise of some kind, which, of course, did take place in some instances.

Dr. ALTMAN. These were mostly compromise agreements I am talking of. I don't mean to imply that there was any payment made by the mortgagor. This face was reduced according to these estimates by about \$200,000,000 in the process of transferring mortgages from the original holders to the H. O. L. C. The same process took place with respect to other types of mortgages, but we simply don't have the information as to the amount of reductions of face value in such other compromise agreements, and for that reason I am not offering any data on that particular score.

The amount of compromise agreements couldn't have been very great, because we had about \$22,000,000,000 of outstanding mortgages as of 1930, and a reduction of \$200,000,000 of the face amounts to merely 1 percent of the total.

Mr. O'CONNELL. One of the things to which can be attributed the reduction in nonfarm mortgages, then, from 22.3 billion in 1930 to 17.3 billion in 1937 is the matter of composition, or an arrangement by which the outstanding mortgage indebtedness was to some extent reduced, and the only portion of that as to which you have accurate data is the H. O. L. C. portion of the reduction, which involves \$200,000,000.

Dr. ALTMAN. That's right.

Dr. LUBIN. May I ask what the significance of these figures on outstanding mortgage indebtedness on American homes is? These are figures which represent the face value of the mortgages, do they not?

Dr. ALTMAN. Yes.

Dr. LUBIN. In other words, there is no relationship between the figure of 17.3 hundred millions for the year 1937, and the value of the assets behind them. In other words it is quite probable, is it not, that between 1929 and 1937 the actual market values of these buildings which are represented by these mortgages had gone down markedly, but they were not written off in the sense that inventory in a plant would be written off. The face value remained just as it previously had been, irrespective of the fact that the assets behind had deteriorated in value.

Dr. ALTMAN. That is right, except that the face value of the mortgage is important as indicating how much individuals have to pay. The fact that a mortgage may have been \$1,000 on a \$2,000 house in 1929, and the value of that house fell to \$1,000 in 1937, still didn't mean that if there hadn't been any amortization of the mortgage in those intervening years the person wouldn't have to pay \$1,000 on that mortgage, out of diminished assets.

The last factor I would like to mention in connection with the decline in mortgage indebtedness in 1930 is a bias in the figures which should be taken into account in any discussion of the subject. One of the holders of mortgage indebtedness on one- to four-family nonfarm dwellings consists of the group of closed banks. We have no data on the real-estate holdings of closed banks throughout these years. As a bank failed, the amount of real-estate holdings which it had sort of got lost in the totals. We don't know which particular lending agency, in which particular type of lending agency, the real estate was held.

It is estimated that in 1937 the closed banks still held about \$200,000,000 of mortgages on one- to four-family nonfarm homes, about 90 percent of which had been acquired in or prior to 1934. Actually, then, the decline in the mortgage indebtedness from about \$22,300,000,000 in 1930 to 17.3 billion in 1937 is exaggerated to the extent of perhaps several hundred million dollars through the failure to include mortgage holdings of closed banks. In general, though, there was a very severe contraction, amounting to, more than $3\frac{1}{2}$ billion dollars of mortgage indebtedness from 1930 to 1937.

(Mr. Henderson assumed the chair.)

Dr. ALTMAN. May I turn, now, to the general question as to who holds the mortgage debt upon one- to four-family nonfarm homes?

The chart sets forth the holders of this debt in 1929 and in 1937.¹ In 1929 you will notice that of a total outstanding debt of 21.7 billions, 7 billions was held by the savings banks and loan associa-

¹ See "Exhibit No. 626," Hearings, Part IX, p. 4094.

tions; 3.2 billions was held by the mutual savings banks; 2½ billions by commercial banks; 1.7 billions held by the life-insurance companies; and 7.2 billions held by individuals and all other institutional holders not previously included.

I think we may summarize the situation at the peak of the outstanding mortgage indebtedness on one- to four-family nonfarm homes in 1930 in somewhat the following fashion: In 1930 about one-third of the debt on one- to four-family nonfarm homes was held by the savings and loan associations. Another third was held by individuals and others, and the remaining third was held by financial institutions, including the commercial banks, the life-insurance companies, and the mutual savings banks.

By 1937, when the debt had been reduced to 17.3 billions, we find that the H. O. L. C., which had come into the picture in the meantime, had materially changed the situation. In 1937 the H. O. L. C. held 2.4 billions, or 14 percent of the outstanding mortgage debt. Individuals and others continued to hold about a third of the outstanding mortgage debt, though the amount they held had been reduced from 7.2 billions in 1929 to 6 billions in 1937.

The share of the savings and loan associations in the total had been materially reduced from about one-third in 1930 to about one-fifth in 1937, and the share of the financial institutions, though diminished in volume, in absolute amount that is, continued to remain at about one-third of the total outstanding mortgage indebtedness.

Dr. LUBIN. Is it fair to assume from those figures that of the total decline, which you said was approximately three and one-half billions of dollars in the value of outstanding mortgages on these homes, that of that total amount, two billion four hundred million have been taken over by the H. O. L. C? In other words, thereby concluding that only a billion and a half, approximately, or less than a billion and a half of the decline, is attributable to taking over properties and things of that sort?

Dr. ALTMAN. I don't think one can say that. There was a general decline of mortgage indebtedness from 22 billions in 1930 to 17.3 billions in 1937. Along with this general decline went a transfer of debt to the amount of 2.4 billions to the H. O. L. C.

Acting Chairman HENDERSON. The decline was accounted for by the fact that new mortgages that were being placed were not receding at the same rate in the period leading up to 1929, and the payments on the outstanding 22 billion as of 1929 were continuing. There was a considerable liquidation there.

Dr. ALTMAN. That's right, Commissioner Henderson. Those are two of the factors included in the five that I was discussing previously as accounting for the decline in mortgage debt.

Mr. O'CONNELL. Have you any figures on the relative importance of F. H. A. insured mortgages in the total amount of mortgages outstanding, and the volume of such mortgages as being currently written?

Dr. ALTMAN. To answer the first question first, Mr. O'Connell, in 1937 there was an estimated volume of outstanding mortgage indebtedness on one- to four-family nonfarm homes amounting to 17.3 billions. Of this total, 828 millions consisted of mortgages insured by the F. H. A., so that 4.8 percent of the outstanding mortgage indebtedness on one- to four-family nonfarm homes was insured by the F. H. A. at the

end of 1937. This percentage had risen rapidly from the preceding years. It was only one-half of 1 percent in 1935 and 2.3 percent in 1936.¹

So far as the volume of mortgages currently written is concerned, we find the following:

In 1937 the total amount of mortgage loans made on one- to four-family nonfarm homes amounted to 2.4 billion dollars. Of this amount, 424 million dollars was insured by the F. H. A., so that in 1937 one may say that of the volume of new business currently done in this field, 17.6 percent was insured. In 1938 the volume of mortgage loans made on one- to four-family nonfarm homes was 2.4 billion dollars, of which 473 million dollars was insured by the F. H. A., so that approximately 20 percent of the total was insured by the F. H. A.²

It is important to note, however, that the percentages of new business insured by the F. H. A. vary very much as among the different institutions in the mortgage field. For example, if we turn to 1937 we discover that 45.6 percent of the new mortgages written on one- to four-family nonfarm homes by commercial banks were insured. Twenty percent of the new business of the life-insurance companies was insured; 10 percent of the business of the mutual savings banks was insured; 7.6 percent of the building and loan associations was insured.³

In other words, then, not all institutions participated in insurance to the same degree.

In 1938 we find substantially the same figures. Commercial banks wrote \$560,000,000 of mortgages on one- to four-family nonfarm homes, of which 45 percent was insured; the life-insurance companies wrote \$237,000,000 worth of mortgages on the same type of property, of which 16.5 percent was insured. The mutual savings banks wrote \$105,000,000 of mortgages, of which 11 million, or 10.5 percent, was insured. On the whole, for all the lenders in 1938, 20 percent of the new business was insured.³

In order to clarify this I would like to submit for the record tables covering the particular material I have been discussing. The first one is called "Amount of mortgages on urban one- to four-family homes held by various lending agencies, and amount and percentage of such holdings insured by the F. H. A. 1935-37."

(Representative Reece returned to the chair.)

Mr. O'CONNELL. I should like to offer the table.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 858" and is included in the appendix on p. 5483.)

Dr. ALTMAN. The second is called "New mortgage loans on one- to four-family nonfarm homes made by various lending agencies, amount of these loans insured by the F. H. A. and percentage of insured loans to total loans, 1935-38."

Mr. O'CONNELL. I should like to offer this.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 859" and is included in the appendix on p. 5484.)

Dr. ALTMAN. It may be interesting to indicate the relative importance of the different types of mortgage-lending agencies in the picture

¹ See "Exhibit No. 853," appendix, p. 5483.

² See "Exhibit No. 859," appendix, p. 5484.

³ *Ibid.*

at the present time. I will take the year 1938. In 1938 the total volume of mortgages written was about 2.4 billion dollars. The relative shares in the total written by the various agencies are as follows: The commercial banks wrote a little less than a quarter; the life-insurance companies, 10 percent; the building and loan associations, 30 percent; and individuals and others, 28 percent.

In other words, then, the individuals and others continued to be a very important factor in this mortgage market and wrote slightly less than one-third of the new business in 1938.

To present this material in tabular form, I offer the table called "Absolute and percentage distribution, by lending agencies, of new mortgage loans on one- to four-family nonfarm homes, 1935-38."

Mr. O'CONNELL. I should like to offer this table.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 860" and is included in the appendix on p. 5484.)

Mr. O'CONNELL. When you refer to new mortgages, do you mean all mortgages written or mortgages on new homes constructed?

Dr. ALTMAN. All mortgages written within the year, regardless of purpose.

Mr. O'CONNELL. Is there any way of determining how many new mortgages were written for new construction?

Dr. ALTMAN. Yes, there is.

Acting Chairman REECE. The loans made by savings and loan associations and other institutions of that type include the F. H. A. insured loans?

Dr. ALTMAN. Yes, whether insured by the F. H. A. or not, they would be included in the table I just offered for the record, though the preceding table, Congressman Reece, gives the share of total new business by each lending agency insured by the F. H. A.

To answer the question, Mr. O'Connell, as to the amount and proportion of loans going for new construction and of the amount in proportion of loans going for other purposes, I may say that in 1938 of the total volume of 2.4 billion dollars of new mortgages written on one- to four-family nonfarm homes, only 748 million, or 32 percent, went for construction. The remainder went for other purposes which would include refinancing, home purchase, reconditioning, and any other factor other than construction.

Mr. O'CONNELL. Is that 1937?

Dr. ALTMAN. 1938. In 1937 the percentages of new portion for construction was 29 percent; in 1936 it was 27 percent. In 1930 it was 18 percent. To summarize this material I would like to introduce into the record a table called "The estimated amounts of mortgage loans made during each year on one- to four-family nonfarm homes, and the distribution of this total between loans for construction and for other purposes, 1925 to 1938."

Mr. O'CONNELL. I would like to offer this.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 861" and is included in the appendix on p. 5485.)

Dr. ALTMAN. It is interesting to look at the uses to which F. H. A. insured mortgages have been put. Previously I was dealing with all mortgages, whether insured or not. For the period through December 31, 1938, we find that the F. H. A. made 363,908 mortgages, of which

188,000 were made upon new homes and 175,000 upon existing homes. Or, in other words, about 51 percent of the new mortgages insured by the F. H. A. were made upon new homes.

If we turn to the value side of the picture to investigate the value of the mortgages insured by the F. H. A. we discover that one and a half billion dollars of loans were insured by the F. H. A. through December 31, 1938. Of this total \$878,000,000 was placed upon new homes and \$651,000,000 upon existing homes, so that approximately 57 percent of the total F. H. A. insured mortgages was placed upon new homes.

Mr. HENDERSON. In other words, the mortgages on the new homes tended to be slightly higher than the mortgages on the old homes?

Dr. ALTMAN. Yes.

Mr. HENDERSON. That is what the record shows?

Dr. ALTMAN. Yes, by number of mortgages 51 percent, slightly more than half, was upon new homes; by value, 57 percent was upon new homes. To summarize this material I would like to offer a table called the "Distribution by new homes and existing homes of new mortgages accepted for insurance by the F. H. A. through December 31, 1938."

Mr. O'CONNELL. I should like to offer this.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 862" and is included in the appendix on p. 5485.)

Mr. CHAWNER. May we ask a question on the current activity? I understand for the year 1938 the percentage developed on new property was considerably higher. Do you have the figures for the year just passed?

Dr. ALTMAN. I don't have the figures for any period shorter than the period from the inception of the F. H. A. through December 31, 1938.

Mr. O'CONNELL. Dr. Altman, I should like to ask you just one or two general questions on interest rates. Could you give us any general information on the difference between contract rates, so-called, and effective rates, speaking of interest rates, on mortgages?

Dr. ALTMAN. One of the pitfalls in the field of trying to discover what the interest-rate structure upon one- to four-family nonfarm homes is the fact that the mortgages carry a certain rate of interest upon their face; which may be 5 or 6 or some other percent, but this percentage is called the contract rate of interest. On the other hand, there are various expenses involved in getting mortgages, such as fees and brokerage and perhaps expenses of one kind or another, perhaps renewal commissions of one type or another, depending upon who makes the loans and where the loan was made, so that actually the cost to the borrower is greater than is indicated by the face value of the interest rate shown in the mortgage itself.

In order to determine what the cost to the borrower actually is, one should take into account all these additional expenses involved in carrying and servicing the loan. The figure that indicates what the cost of the loan actually is to the borrower is called the effective rate of interest which takes into account both the contract rate of interest and such expenses as are involved in carrying the loan, taking into consideration the length of the loan, the length or maturity of the loan.

Mr. O'CONNELL. As I understand it, the contract rate is the stated rate of the mortgage.

Dr. ALTMAN. That is right.

Mr. O'CONNELL. The effective rate is the actual cost to the borrower and it would, I take it, almost invariably be higher than the contract rate because it would include things not included in the contract rate..

Dr. ALTMAN. That is right, and it would invariably be higher.

Mr. O'CONNELL. I take it also in many cases the effective rate is a thing that might not be known until the mortgage had been paid.

Dr. ALTMAN. That is right, because sometimes you have contingent charges based upon the fact that, for example, you may be delinquent for a month or 2 months in your payment and that may entail a penalty. What the mortgage actually cost the borrower depends upon whether during the life of the mortgage he met all his payments on time or was delinquent one or two times for a month or two on his mortgage-interest payments.

Mr. O'CONNELL. You haven't any accurate information on what the effective interest rates have been or what the trend has been in recent years?

Dr. ALTMAN. It is extremely difficult to offer any very satisfactory information on what the interest rate structure on mortgages covering one- to four-family nonfarm homes is at the present time or has been in the past. It is easy to note from the discussion of effective interest rates that has just been concluded that it is very difficult to determine just what the charges are, and no really thoroughgoing surveys of the situation have been made. I have collected a few scattered bits of information, not all of which are precisely on the same basis, so that comparability is difficult, but the available evidence seems to indicate that there has been a substantial decline in effective interest rates on mortgages covering the one- to four-family nonfarm homes in recent years.

In 1931 a compilation was made of the effective interest rates charged by savings and loan associations. This compilation was based upon reports that were made to the finance committee of the President's Conference on Home Building and Home Ownership. As of 1934, a survey was made covering 52 cities by Mr. David L. Wickens. These data were compiled and published in a volume called Financial Survey of Urban Housing.

As of 1936 a survey was made by the Federal Home Loan Bank Board covering the effective rates charged by Federal savings and loan associations.

I have compiled these series into a table called "Effective interest rates charged by savings and loan associations in 1931, all lenders in 52 cities in 1934, and Federal savings and loan associations in 1936," and this table I would now like to introduce into the record.

Acting Chairman REECE. It may be admitted.

(The table referred to was marked "Exhibit No. 863" and is included in the appendix on p. 5485.)

Dr. ALTMAN. It is evident from this table that in district 1, for example (I am using the districts as adopted by the Federal Home Loan Bank Board reports), including Connecticut, Maine, Massachusetts, New Hampshire, and Vermont, the effective interest rate charged by savings and loan associations in 1931 was 6.5 percent.

The Wickens study showed that in the same district the effective interest rate charged by all lenders in 1934 was 5.88 percent. The Federal Home Loan Bank Board report indicates that by 1936 the rate was 5.7 percent as charged by Federal savings and loan associations.

As you go through the various districts into which the country is divided you find similar though not equal reductions in effective interest rates from 1931 through 1936. The greatest absolute decreases took place naturally enough in those districts which had the highest rates in 1931. District 10, for example, which includes Colorado, Kansas, Nebraska, and Oklahoma, had an effective interest rate charged by savings and loan associations in 1931 of 9.4 percent. The Wickens study indicated that the effective rate was 7.12 percent in 1934, and the Federal Home Loan Bank Board indicated that this rate was about 7 percent in 1936. I can't stress too greatly, however, the fact that these data are not strictly comparable and that there is no really good series for the United States or for any part of the United States indicating what the decline in interest rates has been in recent years.

The difficulty in all this presentation of rates is that you are really not dealing with a comparable commodity through time. In one year the interest rates may reflect mortgages based upon 60 percent of the appraised value; in recent years the percentage of the appraised value has tended to rise, so that now you are dealing with loans made upon 75 or 80 or 85 percent of the appraised value. In addition, the maturity has changed, the amortization provisions have changed, and the expenses have changed.

Mr. HENDERSON. And the insurance factor has entered.

Dr. ALTMAN. And the insurance factor has entered into the picture, so it is extremely difficult to state what the effective interest rate is. Before I say that I should add that in addition you are faced with a wide diversity of conditions throughout the United States. The mortgage market is an extremely diversified, localized market, so that there is no one rate which states what the situation is in any one State or even in any one city.

As a result of all this, it is an extremely difficult statistical problem to determine what the effective rate structure is, and of course it is even more difficult to establish the changes in effective rate structures through time.

Acting Chairman REECE. How does the appraised value affect the interest rate?

Dr. ALTMAN. It affects the interest rate through the risk. That is to say, if you have a loan made upon a property to the extent of 50 percent of its appraised value, the risk is substantially less than if the loan is made upon 80 percent of its appraised value. Now, so far as the home owner is concerned, it affects him in the following way: If a home owner built or bought a house, let's say, on which there is a first mortgage of 50 percent of the appraised value, you have a certain effective rate. He may put in a 20-percent equity. That leaves 30 percent to be financed by a second or third mortgage. The interest cost to the owner of the house, the effective interest cost, which is the only thing he is interested in, consists in the amount of money he has to pay on all mortgages over and above his equity. Now, if you have a first mortgage to the extent of 80 percent of the appraised value,

there is no need for second and third mortgages, so that as you step up the percentage of first mortgages to the appraised value of the property you increase the risk factor involved in first mortgages and at the same time you reduce the cost to the owner of the property because of the fact that you eliminate the necessity of paying higher interest charges upon second and third mortgages. In other words, then, I should think that what we would need in this particular situation would be a thoroughgoing study to determine what it costs a typical mortgagor in various parts of the country at various times to finance his home ownership, taking into account the fact that the relative importance of first, second, and third mortgages has changed through time.

Mr. HENDERSON. Taking into account also the fact that the second mortgage is a very expensive mortgage to obtain on account of fees and charges which are added to it.

Dr. ALTMAN. Yes.

Mr. HENDERSON. Which are not always computed in the interest rate itself.

Dr. ALTMAN. Exactly.

Mr. HENDERSON. The difference in the effective rate on the 90-percent mortgage, the first mortgage, compared with the rate on the 50-percent mortgage, with a second and probably a third mortgage, in the old days was tremendous. Sometimes a mortgage of 85 to 90 percent had a rate of 7 or 7.5 or 8 percent. That would be much cheaper for the borrower than a nominal rate on the first mortgage of, say, 6 percent, with the additional expense of second and third mortgages.

Dr. ALTMAN. Yes. To summarize what you have said, Commissioner, with respect to the material I have introduced, when you indicate that the effective rate was 6.5 in 1931 for district 1 and 5.7 percent in 1936, the decline in the cost to the borrower may actually have been greater than is indicated by this situation because in the latter year it was unnecessary for him to go into the market and get a second or a third mortgage.

Mr. HENDERSON. Well, apart from the statistics, if you had to make your best guess, you would say, would you not, that there had been a downward trend in the effective rate?

Dr. ALTMAN. There has been a downward trend in the effective rate on first mortgages and this downward trend is even greater than has been indicated through the fact that the percentage that the first mortgages represent of the appraised value has gone up.

Acting Chairman REECE. Has there been much loss on first mortgages in the past?

Dr. ALTMAN. I don't know. That is a very difficult question to answer.

Acting Chairman REECE. I had in mind my recollection of a statement that one of the witnesses made yesterday with reference to life-insurance companies in particular which as I recall was to the effect that there had not been, that while the institution held a good deal of property, when it was sold it usually brought the amount of the mortgage plus expenses. I am not sure my recollection is correct.

Dr. ALTMAN. I am not prepared to say. There is such a diversity in this field, because some of the agencies lend more strictly than others,

they lend to different types of property and different size mortgages. Then you have the additional factors that the future trend of prices influences the amount of loss that they take; the amount of service that they are prepared to extend to the property varies. I would not be prepared to make any general statement as to what the losses were.

Mr. HENDERSON. From your study, however, of the mortgages held by various types of agencies, would you conclude that all the losses that have taken place have not been realized or written off yet?

Dr. ALTMAN. That would be a guess not supported by any of the material I have introduced so far. I should suspect that there probably are some unrealized losses with regard to existing mortgage debt, that whether these losses will ever be taken or not depends upon what the future trend of real-estate values will be. If real-estate values rise, the present unrealized losses may never have to be taken. If they fall, we will not only have to take some of the unrealized losses as they exist at the present time but take others that aren't even on the books.

Mr. HENDERSON. When you get a substantial institution which can carry a mortgage in default for a long period, it is the hope that it will come back. You do have a certain amount of unrealized loss carried because of the strength of the institution which carries it.

Dr. ALTMAN. Yes. I should say that in general to the extent that you have an institution which can finance and carry real-estate holdings over a long period of time, the chances are better that they can emerge from that situation without taking any loss either on the properties they acquire or on the mortgages they hold than if they would have to liquidate on a distressed market.

Mr. O'CONNELL. I have no further questions of this witness.

Mr. CHAWNER. On the point that Mr. Henderson was just discussing, wouldn't you say that the worth of the mortgage is not determined by the income of a given year and that one has to consider the income and the worth of the property underlying the mortgage over a given period? If in 1933 it had been necessary to sell many properties or to estimate their worth on the basis of the current income, in many cases it would have been less than nothing, but the value or the worth of these underlying mortgages depends upon income of the properties over a given period of years, so that what the life-insurance companies have attempted to do is to take over these properties, not force them, but to settle in a more favorable market when the income and the value of the property is higher. That is the very nature of the case, is it not, in a mortgage obligation?

Dr. ALTMAN. That must necessarily be so. If you have a property which is capable of giving income, or its equivalent, service, to someone or other over a period of 20 years, the value of that property consists of the value of all its future services, of all its future income, and not merely of the incomes in any one year. It would be a great mistake to value a property that would last 20 years by the income that it would give this year or next year or merely for the next 3 years.

Mr. HENDERSON. To add to that, of course with a declining rate of return on other kinds of investment, a declining income even in one period might make a property a valuable asset for an insurance company or a savings-bank institution to maintain. Even though the stipulated rate of interest is not paid on the mortgage it may recapture enough to make it a more favorable investment than the securities of municipalities or the Federal Government.

Dr. ALTMAN. The relative attractiveness of mortgages in the investment of, say, life-insurance companies depends upon what other things they can put their money into. The mere fact that the contract rate, let us say, upon a mortgage has fallen from 5 to 4.5 percent doesn't mean that mortgages are necessarily less attractive than they were in the preceding period if at the same time the yield on high-grade bonds falls from 4 to 2 percent, so that you may find yourself in the incongruous position of finding that mortgages—I am not saying that this is so—I am discussing a hypothetical situation—are relatively a more attractive investment despite the fact that the yield on mortgages has fallen, because the yield on other securities has fallen more.

Acting Chairman REECE. Are there any other questions?

(The witness, Dr. Altman, was excused.)

Mr. O'CONNELL. I should like to call Mr. R. R. Rogers.

Acting Chairman REECE. Do you solemnly swear that the testimony you shall give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. ROGERS. I do.

TESTIMONY OF R. R. ROGERS, VICE PRESIDENT, PRUDENTIAL INSURANCE CO., NEWARK, N. J.

ANALYSIS OF THE FACTORS DETERMINING INTEREST RATES

Mr. O'CONNELL. Mr. Rogers, will you state your name and address for the record?

Mr. ROGERS. R. R. Rogers, Newark, N. J.

Mr. O'CONNELL. You are a vice president of the Prudential Insurance Co.?

Mr. ROGERS. That is correct.

Mr. O'CONNELL. And for the past 11 years in charge of their mortgage-loan department. Is that correct?

Mr. ROGERS. Substantially correct. The last 4 or 5 years in charge; prior to that second in command.

Mr. O'CONNELL. I should like to ask you a couple of general questions along the line of some of the testimony that was introduced in the past 3 or 4 days before going to the thing that we wish to discuss in detail, the finance charges and interest rates.

Are you in accord with the view expressed by a number of previous witnesses that there is an actual need for new dwelling accommodations on the one hand and that there are large accumulations of individual savings seeking investment on the other?

Mr. ROGERS. Yes.

Mr. O'CONNELL. You have no quarrel with that general proposition. Are you also in accord with the view expressed by previous witnesses that the construction industry is not at the present time supplying any substantial amount of adequate dwelling accommodations for persons in the so-called middle-income group, by which I mean persons or families having an income of less than \$2,000 a year?

Mr. ROGERS. Correct.

Mr. O'CONNELL. Do you believe, from your experience, that there has been a moderate increase in residential construction over the past 3 years?

Mr. ROGERS. Yes.

Mr. O'CONNELL. To what do you attribute this increase?

Mr. ROGERS. I would say first probably to the influence of F. H. A. insured loans up to 80 or 90 percent of the appraised value. The normal increase in residential building from necessity or from choice, a substantial reduction in interest rates on mortgage loans combined with corresponding decreases in initial financing charges. And fourth, long-time self-amortizing loans reducing the annual cost of the debt service. I don't know in what order they come, but I would say that the F. H. A. insured loans probably come first.

Mr. O'CONNELL. Well, now all of the factors that you have mentioned other than the one related to what you call necessitous building seem to be factors which have had a bearing on cost, is that correct?

Mr. ROGERS. Yes.

Mr. O'CONNELL. You refer to F. H. A. loans?

Mr. ROGERS. That is right.

Mr. O'CONNELL. F. H. A. loans.

Mr. ROGERS. Cost or margin, I would say the narrow margin of security and the large margin of loans, that wouldn't have anything to do with cost.

Mr. O'CONNELL. I don't know, I am asking you.

Mr. ROGERS. I would say that 80 or 90 percent loans being insured by the F. H. A. has nothing to do with the cost.

Mr. O'CONNELL. But must it not be it produces more prospective home owners because it opens the market for persons who could not finance the construction of a home before.

Mr. ROGERS. That is right.

Mr. O'CONNELL. In that sense it is hitting a group or demand that was not satisfied or could not be satisfied before?

Mr. ROGERS. Oh, yes.

Mr. O'CONNELL. In that respect it affects the cost I should think.

Mr. ROGERS. Well, perhaps it does; perhaps it doesn't. Let it pass.

Acting Chairman REECE. Pardon. Would you kindly remember to talk into the microphone.

Mr. O'CONNELL. Not considering for the moment what particular items of cost any reduction could best take place, in your opinion would a substantial reduction in the cost of home ownership contribute toward a further expansion in the field of residential construction?

Mr. ROGERS. Very materially.

Mr. O'CONNELL. Previous witnesses have discussed costs from two angles, one being the capital cost of a house, the other being what they have referred to as annual costs by which I understand them to mean the amount per month which it would cost either the renter or the home owner to meet his monthly or periodic obligations. Those are two somewhat different ways of approaching the cost problem. Have you any belief or feeling as to the relative importance of the two?

Mr. ROGERS. Will you kindly state the question again? I got rather lost in the maze of it.

Mr. O'CONNELL. I am sorry. Witnesses have discussed costs on two bases, one capital cost of the house, construction cost; the other the annual costs.

Mr. ROGERS. Yes; I understand your question now. My answer would be that in a rather wide experience of selling some 20,000 single-family dwellings or duplexes that the first consideration is price, but that the carrying-charge situation is very important. My own experience has been that with the average buyer, his first inquiry was the price; if we can't satisfy him on the price we can't in the terms; that is our own experience.

Mr. O'CONNELL. But if you do satisfy him on the price, then you talk about the annual cost; I take it that his ability to acquire the property is pretty directly related to what it is going to cost him at periodic intervals?

Mr. ROGERS. I say it is very important.

Mr. O'CONNELL. It is very important, but just a question of what you consider first; you think they talk of capital costs first; if you get over that hurdle you take the annual cost?

Mr. ROGERS. Pretty much the same as a man buying an automobile; about the first thing he asks is the price and then he talks terms.

Mr. O'CONNELL. There is another general question I think you might want to answer. One of the witnesses who was before the committee yesterday gave us some figures relative to the effect of certain percentage reductions in various elements of cost. Now I would like to refer to that testimony of Mr. Davison which was to the effect that a 20-percent reduction in material costs would result in a 9.33-percent reduction in monthly fixed charges; that a 20-percent reduction in labor costs would result in a 4.67-percent reduction in monthly fixed charges, and that a 20-percent reduction in interest and amortization would result in a 16.6-percent reduction in monthly fixed charges.¹

Have you anything you would care to say about that particular computation?

Mr. ROGERS. No; I haven't had time to study it out. It is quite an involved statement. However, Mr. Fitzgerald, sitting beside me here, is the statistician of our mortgage-loan department and after hearing that testimony yesterday I asked him if he would give some study to that yesterday afternoon and evening, so that he might answer the question for me.

Mr. O'CONNELL. Is he prepared to answer?

Mr. ROGERS. Yes.

Acting Chairman REECE. Do you solemnly swear that in your answers to questions in this proceeding you will tell the truth, the whole truth, and nothing but the truth, so help you God?

Mr. FITZGERALD. I do.

TESTIMONY OF H. W. FITZGERALD, NEWARK, N. J.

EFFECT OF REDUCTION IN CAPITAL COST AS COMPARED TO SIMILAR REDUCTION IN INTEREST RATE

Mr. O'CONNELL. Would you state your name and address for the record?

Mr. FITZGERALD. H. W. Fitzgerald, Newark, N. J.

Mr. O'CONNELL. Do I need to restate the question?

¹ See *supra*, p. 4992 et seq.

Mr. FITZGERALD. I think it would be well if you do, Mr. O'Connell.

Mr. O'CONNELL. A witness yesterday testified to the effect that a 20-percent reduction in material cost would result in a 9.33-percent reduction in monthly fixed charges; that a 20-percent reduction in labor costs would result in a 4.67-percent reduction in monthly fixed charges; that a 20-percent reduction in financing costs, by which I understood him to mean interest and amortization, would result in a 16.69-percent reduction in monthly fixed charges. I understand he was speaking about the single-family home on a home-ownership basis.¹

Now, the question I asked Mr. Rogers was as to whether he had any quarrel with the accuracy, the mathematical accuracy, of the computations or if he had anything he wished to say commenting on this calculation.

Mr. FITZGERALD. Mr. O'Connell, in the first place I would like to say that the problem is of a kind which involves a number of relative relationships. For a given set of variables the calculation would produce the percentage decreases in the carrying charges indicated in your example. With every other set of variables you would get somewhat varying percentage decreases in the carrying charges. Now to comment further on the problem in general, I presume that when you speak of fixed charges or carrying charges you are talking specifically about interest, amortization, taxes, and insurance.

Mr. O'CONNELL. That is right, and insurance premium on an F. H. A. loan, I believe, in the example that was used.

Mr. FITZGERALD. Which would be a comparatively small proportion of the total carrying charge.

Mr. O'CONNELL. I understand those are the items included in the fixed charges.

Mr. FITZGERALD. Now, from the standpoint of the mathematics of the thing, it should be perfectly obvious that inasmuch as the elements of interest and amortization will constitute probably from 80 to 85 percent of the total amount of carrying charges, that a 20-percent reduction of that major portion will result in a significantly large reduction of the total carrying charge. It is a direct operation.

Now, by way of comparison, a 20-percent reduction of the item of material costs which enter into the total capital outlay involved in producing a building will, when translated into terms of the monthly carrying charge, necessarily be small, and that would vary with the varying proportion that material represents of the total capital charge from case to case; likewise in the case of labor.

Mr. O'CONNELL. Well, the example cited, the material percentage of capital cost is indicated to me to be 43.73 percent and the labor 23.37 percent. As you say, those would undoubtedly vary. The combination of the two is slightly over 70 percent for the combination of the two. I take it that while there might be variances between labor and material, the sum total of the two would probably not be in excess of 70.

Mr. FITZGERALD. Then, to generalize, let me put it this way. The percentage by which a given percentage reduction of material costs and/or labor costs will reduce the monthly carrying charge will vary with the ratio of loan to value of property and it will decrease as the ratio of loan to value decreases.

¹ See *supra*, p. 4992 et seq.

Mr. O'CONNELL. Now, let me see if I understand that. That if the loan were a 60-percent loan instead of an 80-percent loan—I believe these calculations are based on an 80-percent loan—if the loan were a 60-percent loan, then the 16½ percentage figure, 16.69 figure, that we refer to would be decreased, is that right?

Mr. FITZGERALD. Well, to give you an example. If you will permit me to assume that materials plus labor represent 80 percent of the cost of producing the building.

Mr. O'CONNELL. That is a little high, but for the purpose of the example, I guess we will. No evidence has been presented here that would indicate that in any of the actual cases cited has it been much more, if any more, than 70, but if you have an example based on 80 we will go along with that.

Mr. FITZGERALD. And if you will presume this example, then a 20-percent reduction in materials and labor on a 90-percent mortgage would reduce the carrying charges 14.4 percent; on an 80-percent mortgage, 12.8 percent; on a 70-percent mortgage, 11.2 percent, and so on down.

Mr. O'CONNELL. How much would your reduction of 20 percent in your principal and interest payments reduce the carrying charges on a 90-percent mortgage?

Mr. FITZGERALD. Well, I would say that if your interest and amortization approximate 81 percent of the total carrying charges, then the carrying charges would be reduced approximately 16 percent by a reduction of 20 percent in the debt service part of the carrying charges.

Mr. O'CONNELL. I don't quite understand. My question was what percentage reduction would you arrive at if you assumed a 90-percent mortgage? You say that assuming a 90-percent mortgage a 20-percent reduction in labor and material costs, and there again assuming the labor-material constitute 80 percent of the capital cost, would result in a reduction of 14 percent. I am merely trying to use the same figures.

Mr. FITZGERALD. I thought you were referring to the other part of the problem when you asked that question. The only point that I want to make is that as your amount of mortgage in proportion to the amount of the value of the property diminishes, there is a reducing effect derived from the reduction of materials and labor, but I think that the most significant part of this whole discussion is simply this. You are comparing percentage changes operated on one base with percentage changes operated on another base. By that I mean you are comparing percentage change in carrying charges with percentage change in capital cost.

Mr. O'CONNELL. Sure.

Mr. FITZGERALD. Now, as a matter of actual fact, from the standpoint of the home buyer, in the final analysis a 20-percent reduction in the cost of that portion of his capital investment represented by materials and labor will represent a much more significant substantial and important savings in dollars to the home buyer in the long run than a 20-percent reduction in the interest and amortization.

Mr. O'CONNELL. Well, I think there are any number of comparisons that could be made, I have no doubt. Of course, in terms of capital cost we cannot compare a given reduction of labor and material cost with a reduction in finance cost because the finance costs are an inconsequential item until you get into the occupancy period and we

were discussing or attempting to see what effect these various types of reduction would have on what has been referred to as the rental dollar. I hold no brief for the particular statistics that were presented here yesterday. It seemed to me that they were valid. If the annual cost is of importance and is of prime importance to the average home owner, it seems to me that to compare major items that enter into that annual cost to see what the relative effects of each of them would be is a valid comparison. Now, do I understand that you don't agree with that?

Mr. FITZGERALD. Well, I would say that to the extent that the home buyer is forced by circumstances to deal in terms as opposed to values, a reduction in the amount of the carrying charges would be significant.

Mr. O'CONNELL. But the home owners we are talking about are as a practical matter forced to deal in terms of annual cost, aren't they?

Mr. FITZGERALD. Well, I prefer to sidestep that one; I think it is a matter of circumstances with the individual.

Mr. O'CONNELL. Well, we are dealing with a group of people who make \$2,000 a year and less and while possibly you don't like the use of the word "forced," I mean as a practical proposition it has always seemed to me that the amount that that particular individual can pay or can afford to pay per month per year for his growing accommodations is a very decisive factor in determining whether or not he has them.

Mr. FITZGERALD. Well, yes. I would say if he is forced to pay on terms he is forced to take on a longer period of amortization.

Mr. O'CONNELL. Why do you say longer period of amortization. For the purposes of comparison we contrasted financing costs, which means principal and amortization, with the other items. No, I hadn't attempted, nor had the witness attempted, to suggest how that reduction could be achieved at all. I think it is perfectly clear, though, that it could be achieved by either a reduction in interest rate or increase in the amortization period or a combination of the two, isn't that so?

Mr. FITZGERALD. Yes; I would say that is an academic question.

Mr. CHAWNER. Mr. O'Connell, it might clarify this discussion if you recall a comment of the preceding witness, namely to the effect that approximately half of the mortgage represented in most cases in the country as a whole, approximately half the value of the property, and that is the point I take it that the witness is making, that that is an important consideration when you are trying to compare changes in capital cost with changes in operating or the annual cost. One must consider the actual experience, that you cannot say that a change in operating cost operates on the total capital cost because as the previous witness has indicated, in most cases the loan is only half of the value of the property.

Mr. FITZGERALD. The problem necessarily changes with every change of the set-up about which you have been talking.

Mr. O'CONNELL. Can't we agree that in the example cited by the witness yesterday in which he took an 80-percent F. H. A. mortgage and took a situation of an actual house in which the combination of labor and material costs were 70 percent of the capital cost, cannot we accept as valid his comparison for whatever it is worth, that a 20-percent reduction in principal and interest payments, however

arrived at, would result in a more substantial decrease in monthly fixed charges than would a 20-percent reduction in the cost of labor and material combined?

Mr. FITZGERALD. I would agree that the statement is mathematically correct.

Mr. O'CONNELL. That was the main thing I was interested in. We had no discussion that was put in the record yesterday; it was accepted and I thought you people would have some comments on it.

Mr. FITZGERALD. In following up and making one more comment, I have studied Smith & Dawson's house which was discussed in the evidence yesterday¹ and I estimate that a 20-percent reduction in material and labor costs entering into that house in the final analysis would save the purchaser substantially more than a 20-percent reduction in the interest rate.

Mr. O'CONNELL. Would you explain how you arrived at that? Do you want to ask a question?

Mr. HENDERSON. Yes. I want to ask this. It is certainly true that 20 percent of a larger amount is greater than 20 percent of a smaller amount. But as to the inducements to take on a contract to buy a house, there is no doubt that the lowering of the monthly fixed charge is a great inducement, isn't that true?

Mr. FITZGERALD. I think that is self-evident.

Mr. HENDERSON. So if you are looking at it from the standpoint of the stimulus to construction, probably more impetus to home buying can be given by a reduction in finance charges than even the more substantial reduction that takes place when the cost of labor and material is reduced. Isn't that correct, or didn't you follow?

Mr. FITZGERALD. Well, I followed you, and I think you necessarily have to agree to the extent that the buyer is forced to rely on terms rather than values.

Mr. HENDERSON. Do you want to say anything concerning the importance of terms to the borrower in deciding whether he buys a house or not? If he has a \$2,000 income, isn't there a limit to the percentage that he can pay? If he could pay 80 percent of his \$2,000 income on a house in a year he could save a tremendous amount, couldn't he? That is, if he could take \$1,600 out of an income of \$2,000 and apply that toward the purchase of a house he would make a tremendous saving, wouldn't he?

Mr. FITZGERALD. Yes.

Mr. HENDERSON. So there is some limit to what he can pay and if you can lower the monthly charge six or seven dollars it is a substantial item for a low-income group, and probably is an inducement to buy?

Mr. CHAWNER. Would it clarify this point a little bit if we took an example in terms of dollars. Take the value of a \$10,000 house which carries a \$5,000 mortgage; I take it that what the witness is trying to say is that a 20 percent reduction in the \$10,000 item, capital cost, would be more than a corresponding percentage change in the \$5,000 which is the amount of mortgage loan made on the property. Is that the point you are making?

Mr. FITZGERALD. Well, I think Mr. Henderson has seen the point very clearly and I agree with Mr. Henderson that if it is made easy for a person of small means to buy a home and the circumstances are such that he must have a home, or it is preferable that he have a home, that then he can buy; otherwise he can't.

¹ See "Exhibit No. 854", appendix, p. 5480.

Mr. HENDERSON. And he will buy, usually, isn't that it? The large percentage of people would buy if they could fit the down payment into their amount of savings and the monthly charges into their current income. Isn't that how you form your mortgages? You find some basis upon which somebody can reasonably carry that mortgage, and that is the inducement which leads people to buy houses?

Dr. LUBIN. I still don't get the mathematics of Mr. Fitzgerald's statement. I mean, he said that a 20 percent reduction in cost of materials and labor, that has an effect upon the actual cost of the house itself would be greater in the long run than the saving of 20 percent carrying charges, that is interest and amortization, and I don't want to get into too involved a mathematical argument, but I was doing some figuring here and I can't find any formula by which I can arrive at that myself. In each instance the saving in interest of that amount would more than offset the saving in actual carrying charges.

Mr. FITZGERALD. Well, are you referring to the individual case here that I mentioned, or—

Dr. LUBIN. Take the \$2,000 house, assume that labor is 80—labor-material is 80 percent of the total; it means that labor and material represents \$1,600, according to your hypothesis, and a saving of 20 percent there means a saving of \$320; that is 20 percent of \$1,600, which means that the cost of the house now becomes \$1,680.

So the man saved \$380. He also saves on his interest rate, because of the fact that he now pays on \$1,680 rather than on \$2,000, but even after you figure that in for a period of 20 years, the net saving would not be as great as a 20 percent decline or cut in the interest rate on \$2,000 over a period of 20 years. I can't figure out how you can get any example whereby you could show that a 20 percent saving in labor and materials over a period of 20 years would be equal to a 20 percent cut in carrying charges over a period of 20 years.

Mr. FITZGERALD. I think it is necessary that you make a distinction in your carrying charges. The amortization part has got to be carried out ultimately. The only thing you can reduce absolutely is the interest, and possibly the taxes to some extent.

Dr. LUBIN. Yes, but let's forget taxes and consider only interest and amortization. I question your statement that a 80 percent savings in materials and labor would be greater than 20 percent savings in interest and amortization over a 20-year period.

Mr. FITZGERALD. The problem again will have to be qualified by the interest rate you use and all the terms incident.

Dr. LUBIN. I will grant all those. I wish you would submit for the record at your leisure a mathematical calculation that will show that to be true.¹

Mr. O'CONNELL. I understood you had made some sort of calculation based upon one of the houses discussed yesterday while Mr. Dawson was on the stand.

Mr. FITZGERALD. Of course the problem has come up quickly, and there has been comparatively little time to make an exhaustive analysis of all possible cases, but I say that in connection with the Smith-Dawson house I estimated that a 20 percent reduction in the

¹ Mr. Fitzgerald subsequently submitted an explanation of the figures in question, see his letters dated July 6 and July 8, 1939, to Mr. Joseph J. O'Connell, Jr., which appear in appendix, pp. 5590 and 5591.

amount of materials and labor, as indicated by the exhibit that was submitted, would ultimately represent a greater savings in dollars to the buyer of that house, than would a 20 percent reduction in the interest rate.

Now I might qualify that further by saying that that was figured on the usual F. H. A. mortgage set-up of a 90 percent mortgage on \$4,800 payable at the rate of 5 percent interest, with a fixed monthly payment of \$6.60 for interest and amortization.

Mr. O'CONNELL. Let's agree, unless Dr. Lubin wants to go further with it, that since there seems to be a very definite cleavage between you—and I frankly don't think we ought to pursue it in detail here, we would all have to sharpen our pencils and probably would get even more confused—and since the gist of your statement is that by your computations a 20 percent reduction in labor and material on this house to which we have referred would result in a greater percentage of reduction in annual or fixed charges than would a comparable reduction in interest—do you mean interest charges?

Mr. FITZGERALD. I said a 20 percent reduction in the interest rate.

Mr. O'CONNELL. Well, that, of course, is a little different from the thing we were talking about, too, but let's agree that you will give us some accurate figures in explanation of that viewpoint of yours, based on this assumed savings in interest alone, which of course is something other than what we were talking of before, and submit it for the record a little later.¹

Acting Chairman REECE. That may be done.

Mr. O'CONNELL. I think we probably have discussed this particular phase of the problem long enough, so if there is no objection on the part of the committee, I would like to return to Mr. Rogers and get to talking about the thing I am sure Mr. Rogers wants to talk about, and I am sure we want to hear him talk about, and that is interest costs.

Mr. BLAISDELL. Could I finish the line of questioning, not along these particular lines, but along a slightly different line? I will be perfectly happy to have Mr. Rogers answer the question. It has been indicated that if certain changes were made, either in capital costs or in carrying charges, there could be a reduction in the cost to the user of the house. Now the emphasis has been on the fact that there could be such changes. I would like to ask Mr. Rogers whether these changes actually do take place and what the person who is buying or paying for the house on time will actually pay.

Mr. ROGERS. I don't think I can answer the question. All I can say is that over the period of the last 5 years there has been a reduction, a large reduction, in interest rates, probably more than 20 percent, and a reduction of initial financing costs, and a lengthening of the amortization period, all of which has benefited the buyer in the reduction of carrying charges, if that answers your question.

Mr. BLAISDELL. Unless there has been a comparable increase in the total value, which I think is the word that was used, so that the one offsets the other.

Mr. ROGERS. You mean to say unless there has been a comparable increase to the comparable decrease in the cost of construction, materials, labor, and that sort of thing.

¹ See data subsequently submitted, appendix, p. 5590 and 5591.

Mr. BLAISDELL. No; I am saying in the value placed on the property. It is conceivable that the value goes up when the other items go down, so that you have the same charge, in fact, in absolute dollars——

Mr. ROGERS (interposing). What you are saying really is that when interest rates reduce you can capitalize the property at a reduced capitalization factor and therefore it is worth more. Theoretically I think it is sound.

Mr. BLAISDELL. You are a practical mortgage man, and I am asking you what happens in the actual transactions in property.

Mr. ROGERS. Practically, I don't think it has had very much effect.

Mr. BLAISDELL. You don't think these reductions have had much effect in the absolute costs to the person who is getting the house?

Mr. ROGERS. No. I think it is—well, I don't know whether I would say that either. Of course, as interest rates have been reduced that has been a savings, hasn't it? As amortization has strung out longer, that has not been a savings. He eventually has to pay it, of course, but it has reduced his carrying charges, and quite likely by virtue of those two facts has increased the desirability of owning a home. Now if you are asking a question as to whether it has increased the value of that home, I doubt it. It should, but I don't believe practically it has.

Mr. BLAISDELL. I am not dealing now with capitalization. I am dealing with the market for houses.

Mr. ROGERS. Well, that is a very competitive subject, of course, and it is subject to all sorts of extraneous things. Perhaps you would be surprised to know that sales of houses, the market value of houses, if you want to put it that way, has moved up and down with these war scares. Do you believe that?

Mr. BLAISDELL. I will take your word for it.

Mr. ROGERS. It is a fact. I say that there are so many factors that enter into that situation that I don't think I can give you a complete answer to the question you are asking. I would like to.

Mr. BLAISDELL. The thing I am really concerned with is the extent to which and the speed with which these changes in the charges to the actual user of the house reflect themselves in the absolute charges to him.

Mr. ROGERS. The speed with which they do it? I should say just as soon as you put the thing into effect, and it has been gradually coming into effect over the last 5 years, and it is still going on. Interest rates are still declining; amortization is being strung out for still longer periods. It is a continuation of a situation which has existed for some years in the past and is continuing at the present time, and I agree with Dr. Lubin and Mr. Henderson that all of these things have increased the salability of homes, created a desire on the part of home purchasers to buy them.

Mr. O'CONNELL. Let's talk a little bit about interest.

Mr. ROGERS, would you explain to the committee what you conceive to be the major elements which determine mortgage interest rates generally?

Mr. ROGERS. Yes, and I would like to preface it by saying I am neither an economist nor an actuary, and whatever opinion I give of course must be a layman's opinion.

Mortgage loan interest I think embraces three important factors: First, the cost of money; second, the risk involved in lending that money; and third, the cost of doing business.

Mr. O'CONNELL. And when you add the three you get what the interest rate is.

Mr. ROGERS. Yes.

Mr. O'CONNELL. Let's elaborate a bit on the cost of money. Going a little bit more in detail, what is the cost of money to an insurance company, or to your company?

Mr. ROGERS. Well, I will give a layman's answer to that, because I puzzled on it a little bit last night, and it may be entirely incorrect. I will just give what I think it is, as far as an insurance company is concerned; that amount, in addition to other factors, such as premium income, savings in mortality, and perhaps other factors of which I don't know, which must be earned to mature insurance contracts.

Mr. O'CONNELL. Is that intelligible to you?

Mr. HENDERSON. I am afraid either I was wool-gathering or I missed it. Will you go over it again? Will you ask the question again and have the witness respond again?

Mr. O'CONNELL. I will ask Mr. Rogers again if he will tell us what he means by the cost of money as applied to insurance companies.

Mr. ROGERS. And my answer was: That amount in addition to other factors, such as premium income, savings in mortality, and perhaps other factors, which must be earned to mature insurance contracts.

Mr. O'CONNELL. Do I understand, then, that there is a sum, certain or uncertain, which must be earned on mortgages to carry out your insurance contracts?

Mr. ROGERS. I can't say a sum certain, because mortgages are only one of our investments; but I would say sufficient must be earned on mortgages and on other investments to accomplish the purpose for which insurance is created, and that is the payment of death claims or surrender values.

Mr. HENDERSON. Let me ask you this. In your department, does the comptroller make you a rate?

Mr. ROGERS. No.

Mr. HENDERSON. He doesn't; as in a bank, for example, when it is laying off funds for the operation of some department, it frequently has a charge of a fixed rate. You don't get that from the comptroller?

Mr. ROGERS. No; the department is entirely independent of all other departments, and interest rates, of course, vary in the types of securities which we accept on mortgage security.

Mr. HENDERSON. Do you have a sort of rule of thumb of what your recapture rate has to be?

Mr. ROGERS. No; I never even give it a thought.

Mr. HENDERSON. You are guided more by the market?

Mr. ROGERS. By competition. I should say this, that if our mortgage interest rate was an unsatisfactory situation, that our actuarial department would probably call it to our attention, or call it to the attention of the board of directors, and we might be instructed to cease or go ahead or stop or slow down.

Mr. HENDERSON. Which might lead you to believe that you have a slight working margin, at least.

Mr. ROGERS. I think so.

However, I would like to touch a little on that subject of cost and risk.

Mr. O'CONNELL. We had only discussed the first item of the three. We are going to take all three, are we not? I think we will probably come back to the cost of money. I am not entirely clear yet as to what the cost of money is to insurance companies.

Mr. ROGERS. I am not either.

Mr. O'CONNELL. It certainly isn't a contractual obligation on the part of insurance companies to obtain a certain specific percentage of returns on their investments.

Mr. ROGERS. You are getting over my head, and I think I will have to stop where I am. It is really an actuarial question, and I am not an actuary. Mr. Henderson could answer that. I frankly don't know.

Mr. HENDERSON. I will pass too.

I think I have a working knowledge, and I thought perhaps the witness had gone into it. He answered my question all right.

Mr. ROGERS. Frankly, I was hoping to be helped out, Mr. Henderson.

Mr. HENDERSON. I would say your company certainly ought to have the competence to compute that, because they do a lot of computing in the course of a day, as some of the testimony on other matters has shown.

Mr. ROGERS. I don't know that they don't, as a matter of fact. All I say is that the department is entirely separate. I am positive that I would hear from our actuarial department through the proper sources if our mortgage interest rate was not satisfactory.

Mr. O'CONNELL. Now, the second element that you referred to as going to make up mortgage interest rates generally is what you call the risk factor. What would you care to say about that?

Mr. ROGERS. Perhaps the best expression of such risk is found in the practical experience of one large lender in 1938, the Prudential. Total mortgage loans in force—

Mr. O'CONNELL (interposing). You are quoting from something?

Mr. ROGERS. It is a precise answer, and I would rather read from this.

Total mortgage loans in force plus unsold properties acquired by foreclosure aggregated \$1,145,000,000. The gross return from interest was \$45,529,000, and the net return from rentals on foreclosed properties was \$2,932,000, or a total return of \$48,452,000.

Dividing the amount received represented by loans and properties into the amount received by way of interest and rentals, leaves a net yield of 4.35 percent, out of which operating expenses of approximately one-half of 1 percent have yet to be deducted, leaving an approximate net yield of 3.85 for that year on the total amount involved in the mortgage loan account of mortgages and properties.

Mr. O'CONNELL. What year was that?

Mr. ROGERS. 1938. The point I am trying to make is that it isn't the stated rate in the mortgage that matters so much as the rate finally collected after risk of loss and expenses have been deducted, and that is always a very much lower figure than the stated rate over a period of time.

Mr. O'CONNELL. Could you tell us what the stated rate was on that group?

Mr. ROGERS. In 1938 our average lending rate was 4.83.

Mr. O'CONNELL. The amount collected is on a basis of 4.35?

Mr. ROGERS. That's right.

Mr. O'CONNELL. Is the difference between 4.83 and 4.35 what you would call percentage attributable to risk?

Mr. ROGERS. No; I would say the amount attributable to risk would be the less amount received from rentals, less percentage of interest that was received from that amount represented by properties owned than the interest rate on mortgages. In other words, had those properties, that \$200,000,000 worth of property—

Mr. O'CONNELL (interposing). Is that the amount owned?

Mr. ROGERS. Roughly. Had those properties remained mortgages at 4.83, then we would have got the stated rate. But as a matter of fact when we take our existing mortgages, which were assumed to be in good standing, paying 4.83, and our foreclosed properties, on which we are receiving rentals after deducting the expense of the operation of the department, the net yield that we would turn over to the actuarial department would be 3.85 for that year.

Mr. O'CONNELL. Having deducted one-half of 1 percent cost of doing business. But isn't it a valid comparison to compare the 4.83 percent, the stated rate, with 4.35, as the realized rate?

Mr. ROGERS. Realized on mortgages.

Mr. O'CONNELL. Well, the 4.35 is realized on mortgages and owned property, and it is diluted by the ownership of the property, isn't it?

Mr. ROGERS. That is true.

What I am really trying to show—I don't know whether this is or what is the best method of determining what the risk factor is, because the year before it would have been greater and the year before greater, because our property has been coming up in terms of renting power. What I am pointing out is that there is a risk element. I have not devised any better way of determining what that risk element is than to take a certain year. If I had time I would like to go back 5 years, and I feel sure the net return of 3.85 would probably be substantiated because the earnings on mortgages were higher during those years.

Mr. O'CONNELL. When you talk about 3.85, that embraces the third element, cost of doing business, so that while it may be very rough, if we compare the stated rate on mortgages with the realized rate on mortgages and unwillingly held property, you get a difference of 0.48, the difference between 4.83 and 4.35. Would it be fair to say that 0.48 percent is the part of the interest rate which is attributable at that period to risk? You were talking about risk.

Mr. ROGERS. Again I would say I am not an actuary, but I would say that would be substantially correct, but I think you would have to take it over a period of years to get any realistic facts out of it. I have given the committee the best I know on the subject.

Mr. O'CONNELL. I am not much of a mathematician myself, but we have had three elements of interest cost: Cost of money, risk involved, and the cost of doing business, and they add up to what your contract rate would be, which in 1938 was 4.83.

Mr. ROGERS. Right.

Mr. O'CONNELL. 4.83. We have 0.5 percent for the cost of doing business, 0.48 percent for risk, and the balance, which would be 3.90 percent, attributable to the first item. Is that right?

Mr. ROGERS. My own figures say 3.85. Anyhow, it is substantially correct, whatever difference there is between the two for purposes of illustration.

Mr. O'CONNELL. That's right—3.85—so that speaking roughly, we find that of the elements that go to make up the interest rate, 0.5 percent is chargeable to the cost of doing business, 0.48 percent is chargeable to risk, and 3.85 percent is chargeable to the cost of money.

(The witness nodded in the affirmative.)

Mr. O'CONNELL. Just to clarify my understanding as to what this includes, this mortgage portfolio of yours includes other than residential housing, including—

Mr. ROGERS. Oh, yes—everything, farms, everything. The total amount quoted here on receipts from interest and from rentals includes our total amount of interest received on all mortgage investments.

Mr. O'CONNELL. On all mortgage investments, residential and all other sorts? Of course, the percentage of that total portfolio which would be F. H. A.-insured mortgages would be how large?

Mr. ROGERS. At the year-end I would say \$32,000,000. About 40, now.

Mr. O'CONNELL. At the end of '38, which is the period we are using, 32 millions out of a portfolio of a billion one forty-five? You have no way of breaking down the billion one forty-five into residential property and commercial and farm?

Mr. ROGERS. Had I known that you wanted that information and had had plenty of time, I think we could have. It would have involved running about 125,000 cards through the Hollerith machines. It is quite a job to get it.

Mr. O'CONNELL. Apparently, without going to a great deal of trouble we couldn't determine what the stated rate is or the effective rate, or the risk factor on residential property, could we? We couldn't isolate it very easily.

Mr. ROGERS. No; I would say this, however, that our mortgage account is, in number, 90 percent residential loans or apartment houses, and in dollar volume—what?

Mr. FITZGERALD. In dollar volume approximately 60 percent, I should say, residential, as opposed to the other type of property.

Mr. HENDERSON. That means 10 percent of the number of your loans would be nonresidential, but 40 percent by volume.

Mr. FITZGERALD. I think that does not apply to include the farm account with the city account.

Mr. ROGERS. I will say this, that if you want to set us a problem and tell us exactly what it is you want, I will be very glad to get the information for you and send it down for the records.

Mr. O'CONNELL. I was merely trying in line with the first question you answered by giving me the three elements, to bring out as well as I could the relative parts of the total each of the three elements plays, and I think that the last questions merely indicate that we have to remember, in using the figures, that other than residential property is included in the mortgage portfolio. I don't know; if the mortgage portfolio were divided up so that we were dealing with residential

mortgages only, that it would have a very different picture, and I don't suppose you do either.

Mr. ROGERS. I don't.

Mr. HENDERSON. What is your stated rate on residential property?

Mr. ROGERS. Are you speaking of F. H. A.'s or conventional loans, or whatnot?

Mr. HENDERSON. The conventional loans you make direct.

Mr. ROGERS. I would say it was governed by competition. The insurance company is a very small factor in the lending business. They lend all over the country. Local people must be served first, and when you say "What is your effective rate or your stated rate?" it would have something to do with the ratio of loan to appraisal. If someone came to us with a fine 50-percent loan, I don't doubt, under competition, that we would go to 4 percent. If it was a 60-percent loan, conventional, I think we would go to 4.5. So far on our F. H. A.'s we have bought large-scale housing stuff at 4.25, some of it, most of it at 4.5. On the small stuff we have tried to stick very close to a 5-percent rate, but are now paying a substantial premium to get that business.

Mr. O'CONNELL. You mean you pay a substantial premium to the approved mortgagee from whom you buy the insured mortgage?

Mr. ROGERS. Or broker, and in addition to that are allowing him a differential in interest.

Mr. HENDERSON. How would that compare with a conventional loan, say, in 1928?

Mr. ROGERS. You mean the F. H. A. rate?

Mr. HENDERSON. No; your own conventional rate.

Mr. ROGERS. I would say that our interest rate structure is reduced in that period about 20 percent.

Mr. HENDERSON. About 20 percent?

Mr. ROGERS. That is rough. I would say that the earning power of the entire account, going back to 1926, was pretty close to 6 percent, and the earning power of the entire account at the present time is very likely slightly under 5.

Mr. O'CONNELL. Referring to the F. H. A. mortgages, have you any information as to the extent to which you are currently using F. H. A. insurance in your residential-mortgage loans?

Mr. ROGERS. I don't believe there is. Of our new money, probably 30 percent is going into F. H. A., and I wish it was 40.

Mr. HENDERSON. That is a little higher than the average for all insurance companies, which Mr. Altman showed is 16 percent.¹

Mr. ROGERS. I think that is entirely accounted for by our mortgage loan set-up, in that we have branch offices and they don't—and we have better facilities for getting them.

I would like to say at this time that there is certainly nothing critical in the testimony I am giving you regarding the F. H. A. I think they are doing a fine job, and we think a great deal of the Administration.

Mr. HENDERSON. I think we ought to say at this point that the resolution which created this committee specified directly, as I recall, that we were to inquire into governmental policies,² and so far there has been no barring of anybody who wants to say anything about any governmental policy, particularly if it is in line with the inquiry.

¹ See "Exhibit No. 859," appendix, p. 5484.

² See "Exhibit No. 2," sec. 2 (a) (3), Hearings, Part I, p. 192.

Mr. ROGERS. We certainly think they are doing a fine job in relation to the job set them.

Mr. HENDERSON. I am very pleased to hear you say that.

Acting Chairman REECE. In the smaller cities the F. H. A. has been of very great value in encouraging the construction of homes, where the question of individual homes is involved, or at least that has been my observation, and I am wondering if yours has been the same.

Mr. ROGERS. That is unquestionably so.

Mr. O'CONNELL. You said you were currently using F. H. A. insurance to the extent of about 30 percent of your residential mortgage loans, and you wish it were 40. Does that mean that the other 70 percent of loans are loans which are placed at, or which can be placed at reasonable terms without regard to F. H. A.?

Mr. ROGERS. Yes; they don't require the 80 percent or 90 percent loan.

Mr. O'CONNELL. So that you only use F. H. A. where you were taking an 80 or 90 percent loan?

Mr. ROGERS. We have no choice in the matter. It is the borrower's choice. If the borrower who could get a $4\frac{1}{2}$ or 5 percent rate from us conventionally would rather have that than to get even a $4\frac{1}{2}$ plus a one-half percent insurance, or a 5 plus one-half percent insurance from F. H. A., the rate situation is slightly in his favor.

Mr. O'CONNELL. It isn't entirely the borrower's choice because you say if the borrower can get a $4\frac{1}{2}$ percent rate from you, what you mean is if the loan is sufficiently desirable from your standpoint so you are willing to take it without regard to any insurance at a $4\frac{1}{2}$ or even a better rate, there is no occasion to use F. H. A. insurance?

Mr. ROGERS. No; we don't feel he needs the insurance, and he doesn't want to pay for it.

Mr. HENDERSON. I will not be here this afternoon, unfortunately, Mr. Rogers, and I don't want to destroy these fine calculations on risk and cost of doing business and cost of money, but I do have some observations to make on them. In the first place, from an economist's term, the residue of 3.85 is not a cost, but is a return. The other observation that I have to make is that you compute your cost of doing business at 0.5 and you have got a lossage of about the same amount from the average rate due to your lesser income on the foreclosed properties. I wonder if it isn't true that those two items could shift very, very markedly.

In other words, if you pursued the obligor a little harder, paid more money for lawyers and the like, your cost would increase, but so would your return. Don't you find, in your management, that somewhere in between you make a decision as to whether or not you will spend more money to get the money in?

Mr. ROGERS. No; I don't think that is a fact, Mr. Henderson. As a matter of fact, these branch offices are set up on the basis of doing a good job, and the first requirement is conservation of the existing account. That supersedes everything else.

Mr. HENDERSON. What do you mean by conservation of the account?

Mr. ROGERS. Keeping track of it, watching it every day, to see that it remains in good standing. May I say that the accounts are approximately 90 percent in good standing.

Mr. HENDERSON. You mean the property itself when you say "account"?

Mr. ROGERS. Every factor having to do with mortgage loans.

Mr. HENDERSON. The renter isn't called the account?

Mr. ROGERS. Yes, of course, the branch offices have charge of the properties just the same as they do of mortgages, but let me say the first tenet of the branch offices is conservation of the existing mortgage account. That is the first requirement, to keep that in apple-pie order and in good shape. The branch office would be not in very good favor if they let the account slip. I don't mean to say by that that we are oppressive with deserving borrowers; I think we go as far as anybody, and have.

Mr. HENDERSON. I think I could testify to that from some observations I have made.

Mr. ROGERS. But I think the committee will be after us in August, where we have carried some too long; nevertheless, that is what we have done. Now the next tenet is maintenance, management, and sales of real property. There is a separate department in the branch office to handle that. There is a separate department to handle loans. What is the next one? Anyhow, there are six working instructions shown, and each one of those six working instructions shown is periodically checked with monthly visits by mortgage loan supervisors, so I—well, here it is; conservation of existing loans, broadening our lending policy on the basis of safe lending, is two; maintenance and management and sale of foreclosed properties; that used to be two; it is now three, because it is working out and we are more interested in broadening our lending facilities.

The other two have been a combination, absorption of loan correspondents into branch office economy—we are not interested. The organization of branch offices has been completed, and the maintenance of good will.

Mr. HENDERSON. In discussing the break-down of the interest, from my observation, your cost of doing business and your losses pretty much go together. That is, if you spent no money in having the agent make repeated efforts to collect rent, or if you entered no suits—in other words, if you dispensed with all the necessary attendant expenses which go with trying to keep the accounts paid up—you would have a lower cost of doing business, but most assuredly you would have a higher loss.

Mr. ROGERS. You certainly would.

Mr. HENDERSON. And all I am saying is that on that 1 percent which is divided almost equally between cost of doing business and the failure of the properties taken over to earn the same rate, you have an element of judgment in there which you could change very markedly. So I am saying that I can't see that you can set down the risk factor, the economic risk factor, certainly as one-half percent.

Mr. ROGERS. Oh no; I am not trying to do that. I am just making a statement as to 1 year's operations. I made that clear in the statement.

Mr. HENDERSON. Even on 1 year's operation it is not the economic risk factor that is in there.

Mr. ROGERS. I would say this, Mr. Henderson, that that risk factor figured over a long period of years would be much less than that.

Mr. HENDERSON. That the percentage that you lose by failure to—

Mr. ROGERS (interposing). Oh, yes; I am not trying to establish that as a risk factor. I am just trying to call attention to the committee that there is a risk in the business.

Mr. HENDERSON. I think we can agree on that. On the measurement of it I wanted to enter a disclaimer myself, because I don't believe it can be measured that way.

Mr. ROGERS. No; I don't think it can, either.

Acting Chairman REECE. The committee will stand in recess until 2:30.

(Whereupon, at 12:50 p. m., a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

(The hearing was resumed at 2:40 p. m. upon the expiration of the recess.)

Acting Chairman REECE. The committee will please come to order. You may please proceed, Mr. O'Connell.

Mr. O'CONNELL. I should like to ask Mr. Rogers a few more questions relative to the thing we discussed at greatest length this morning, namely the interest rate to the insurance company which he represents on residential mortgages generally. As I understood you, Mr. Rogers, taking 1938 as an example, the average contract rate on residential mortgage properties was 4.83 percent.

Mr. ROGERS. No; that was on all loans made.

Mr. O'CONNELL. All mortgages?

Mr. ROGERS. In other words, in 1938 we loaned a total of \$150,000,000.

Mr. O'CONNELL. On mortgages?

Mr. ROGERS. On mortgages, and the 4.83 rate is the average of all loans made.

Mr. O'CONNELL. Referring more specifically to the residential loans, I understood you to say that at the present time substantially 30 percent of your mortgage loans are F. H. A. insured.

Mr. ROGERS. That is correct—30 percent of the lending of 1938.

Mr. O'CONNELL. We are still using 1938?

Mr. ROGERS. Yes.

Mr. FITZGERALD. May I amend that, Mr. Rogers? I think the statement should be that substantially 30 percent of our urban mortgages—

Mr. ROGERS (interposing). Yes; that is true; 30 percent of our residential loans, city loans.

Mr. O'CONNELL. Are F. H. A. insured?

Mr. ROGERS. That was of the lendings of 1938.

Mr. O'CONNELL. And the other 70 percent of urban residential loans were not F. H. A. insured?

Mr. ROGERS. Urban residential loans and other urban loans.

Mr. FITZGERALD. No; I think it would be more correct to say that 30 percent of our urban residential loans, speaking in terms of all types of residential loans, including apartment loans—

Mr. O'CONNELL (interposing). Yes; 30 percent of your urban residential loans are insured, 70 percent are not.

Mr. FITZGERALD. That would be as accurately as we could estimate it.

Mr. O'CONNELL. And I understood you this morning to say that, generally speaking, the 70 percent that are not insured in F. H. A. are loans which are placed more advantageously in spite of the fact that there is no F. H. A. insurance—more advantageously from the point of view of the borrower.

Mr. ROGERS. That is right.

Mr. O'CONNELL. So, generally speaking, the non-F. H. A. insured loans cost the borrower less than the F. H. A. insured loans?

Mr. ROGERS. Yes; I would say that was correct, particularly in view of the fact that in the F. H. A. loan he pays one-half percent for insurance, which he does not on a conventional loan.

Mr. O'CONNELL. It is always dangerous to generalize but could you generalize as to the contract rate on F. H. A. insured mortgages in your company?

Mr. ROGERS. You mean the lendings of 1939?

Mr. O'CONNELL. 1938; you say it would be higher or lower than the 4.83 average?

Mr. ROGERS. Pretty hard to say because in that there are some of the large-scale housings which were taken at $4\frac{1}{2}$ or less.

Mr. O'CONNELL. But of course also would be the 70 percent of loans that are placed at a lower interest cost generally?

Mr. ROGERS. That is true. What is your question?

Mr. O'CONNELL. As to how the contract rate on F. H. A. insured mortgages with your company would compare with the 4.83 percent average for all mortgage loans.

Mr. ROGERS. I would think it would be about comparable.

Mr. O'CONNELL. About the same?

Mr. ROGERS. Yes. But as I said this morning we would have to run the entire list of cards together.

Mr. O'CONNELL. Well, frankly, what I was trying to get at—what I am interested in—is as to whether the interest return or the interest cost to the borrower on F. H. A. insured mortgages adequately reflects the value of the insurance?

Mr. ROGERS. Yes, I think that is coming more and more into effect because if you took 1939, the average rate on our F. H. A. loans would be much lower.

Mr. O'CONNELL. Much lower than your 1938 rate?

Mr. ROGERS. Yes.

Mr. O'CONNELL. Would the percentage of F. H. A. insured mortgages be higher?

Mr. ROGERS. I think they would be about the same.

Mr. O'CONNELL. So that the reduction in the F. H. A. rate was accompanied by a still lower rate for the non-F. H. A. insured loans?

Mr. ROGERS. No; I wouldn't say that, but I would say this, that in 1939, which is contrary to all of 1938, we are paying cash premiums for 5 percent F. H. A. loans, which in effect is a reduction in the interest rate, as far as we are concerned.

Mr. O'CONNELL. Not as far as the borrower is concerned?

Mr. ROGERS. In reality, as far as the borrower is concerned because the cash premium which we are paying is payment to the broker for bringing the loan in which the borrower formerly paid to the broker.

Mr. O'CONNELL. I don't believe we could probably go into that at this point, but I understand you to mean that the practical effect of your paying a premium on a 5 percent F. H. A. insured mortgage is to give all or part of that premium to the borrower?

Mr. ROGERS. In effect yes, if you understand what I said, and that was that we are paying the broker, whom the borrower formerly paid. It is quite customary during all mortgage loan history, and still is customary, for the borrower—

Mr. O'CONNELL. Pay a broker?

Mr. ROGERS. Yes; to use the services of a broker to get his loan and pay for it.

Mr. O'CONNELL. That is right, but you mean that by virtue of the fact that you pay a premium to the broker he doesn't charge a brokerage to the borrower?

Mr. ROGERS. Correct. In other words, the borrower has at least ceased to pay the charges.

Mr. O'CONNELL. How do you account for that? How does that work out?

Mr. ROGERS. I think it is purely competition, that is all.

Mr. O'CONNELL. You mean competition between brokers?

Mr. ROGERS. Between brokers and lenders, more particularly. In other words, the broker has forced the lender to assume that burden which he formerly collected from the borrower. On the other hand I think it would be safe to say, too, that the borrower realizing that he has something good is refusing to pay that. Someone has to pay the broker; if you are going to deal through brokers in this day and age of competition in the mortgage business, it has to be the lender that has to do it.

Mr. O'CONNELL. Generally speaking, I understood you to say that the non-F. H. A. insured mortgage loans return you less than F. H. A. insured mortgage loans.

Mr. ROGERS. I think it would be pretty close; it would be awfully difficult for me to make a definite statement on that.

Mr. O'CONNELL. Let's assume that it would be close. I am merely trying to go into the question of the relative risks involved of the two types of obligation. In other words, I am trying to evaluate on the insurance on the F. H. A. mortgage. What would you say as to the risk element in an F. H. A. insurance mortgage? Is there a substantial amount of risk?

Mr. ROGERS. I would say, who knows.

Mr. O'CONNELL. Is there a substantial amount of risk in a Government bond?

Mr. ROGERS. There is a risk of loss, of course, in an F. H. A. loan, first of all in the certificate of claim which would carry the foreclosure costs and attorney's fees and so on. Of course you know in some States those charges are very high.

Mr. O'CONNELL. They vary greatly, I think.

Mr. ROGERS. Then if you translate your 5 percent F. H. A. mortgage into a 2¾-percent Government bond, there is a loss of income between the 2¾ percent and 5 percent.

Mr. O'CONNELL. Do you happen to know what those 2¾ percent debentures are worth in the market today?

Mr. ROGERS. No; I don't think there is any market for them.

Mr. O'CONNELL. You mean there are none on the market. There would be a market for them if they were sold. Would you say they would be worth more than their face amount?

Mr. ROGERS. No.

Mr. O'CONNELL. Two and three-quarters Government bonds?

Mr. ROGERS. It is different with a Government bond because the maturity runs probably for a very long period.

Mr. O'CONNELL. It can't run more than 3 years beyond the maturity date of the mortgage.

Mr. ROGERS. It might run 23 years.

Mr. O'CONNELL. A maximum of 23 years from the date of issuance of the insurance.

Mr. ROGERS. Well, if you had a 20-year or 23-year Government bond to compare with it and said what the price was I would say that there would be a market for these debentures, but I don't know.

Mr. O'CONNELL. The element of risk that you refer to—let's see if we understand this. If a mortgage insured by F. H. A. defaults and you bring suit to foreclose the mortgage within 30 days after the default, you are then entitled upon completion of the transaction of foreclosure to receive in return for the property foreclosed 2¾-percent debentures in an amount equal to the mortgage foreclosed with interest. Right?

Mr. ROGERS. With interest after the 30 days.

Mr. O'CONNELL. With interest after the 30-day period? Do you mean there is a hiatus of interest between the default and the time you start foreclosure?

Mr. ROGERS. I don't think you could start it within 30 days. In decency you couldn't start foreclosure on a man within 30 days.

Mr. O'CONNELL. In order to be entitled to debentures with interest from that date you have to start your foreclosure within 30 days.

Mr. ROGERS. Yes.

Mr. O'CONNELL. And then at the completion of the transaction you have received your debentures and you also receive a certificate of claim in amount equal to the expenses of foreclosure.

Mr. ROGERS. Yes; and attorneys' fees.

Mr. O'CONNELL. That expense of foreclosure in connection with defaulted properties is the maximum capital loss that you can conceivably sustain.

Mr. ROGERS. Yes; if you look at it from that viewpoint. You say, and probably you are correct, that the debenture could be sold immediately for 100 cents on the dollar and have your money back, but in the meantime you have lost what you thought was a good 5-percent mortgage.

Mr. O'CONNELL. You didn't think it was a good enough 5-percent mortgage without the F. H. A. insurance.

Mr. ROGERS. No; I mean to say you bought it on the theory it was a good 5-percent mortgage. I have forgotten what your question was. The point I was trying to make was that what we are looking for is income of 5-percent rate and not the debenture rate, and if there is a loss of income, which there would be unless you could immediately invest that money all over again at 5 percent, which doesn't look at all likely at the moment, there would be a substantial loss.

Mr. O'CONNELL. Loss of income as compared to the income on the mortgage.

Mr. ROGERS. Yes.

Mr. O'CONNELL. That is the risk factor, as I take it.

Mr. ROGERS. That is right.

Mr. O'CONNELL. I also take it that the insurance has some value in reducing the risk factor—that is just one of the values of the insurance.

Mr. ROGERS. Decidedly. In other words, these 80- and 90-percent loans would not be selling in the market at all except for the insurance.

Mr. O'CONNELL. But it is difficult, isn't it, to evaluate the risk?

Mr. ROGERS. Just as it was on the conventional loans we were talking about this morning. I know no way to do it. We are not experienced enough with them.

Mr. O'CONNELL. What about the factor of liquidity of loans? Is that of importance in determining the yield that you would expect to get or hope to get?

Mr. ROGERS. No. As far as the insurance company is concerned.

Mr. O'CONNELL. Yes.

Mr. ROGERS. No.

Mr. O'CONNELL. Would that apply to your portfolio generally?

Mr. ROGERS. Yes.

Mr. O'CONNELL. Liquidity is not a factor?

Mr. ROGERS. Insurance companies do not need substantially great liquidity.

Mr. O'CONNELL. They substantially have it.

Mr. ROGERS. I still say they don't need it. As far as that is concerned, you wouldn't consider a mortgage a liquid asset anyhow.

Mr. O'CONNELL. Is a noninsured mortgage as liquid as an insured mortgage?

Mr. ROGERS. No.

Mr. O'CONNELL. If there is any value to liquidity, the F. H. A. insurance has a value in that respect.

Mr. ROGERS. Yes.

Mr. O'CONNELL. They are more liquid.

Mr. ROGERS. Savings banks might be subject to that kind of thing and that element of liquidity might be quite valuable, but I would say that it did not possess the same value to insurance companies.

Mr. O'CONNELL. The liquidity isn't as important to an insurance company as to other institutions.

Mr. ROGERS. I would say that is true.

Mr. O'CONNELL. On F. H. A. insured mortgages we have a liquidity value of whatever it is—less for insurance companies than for some types of investors—and a value in terms of minimizing risk which, as near as we can tell, minimizes the risk to the possible expense of foreclosure plus what you referred to as loss of revenues on your mortgages by virtue of taking 2½ percent debentures in exchange. I find it difficult to give very much value to that risk element because assuming, as I think we must, that the debentures are worth the face amount of the mortgage—

Mr. ROGERS (interposing). Let's put it the other way. Take our conventional loans, residential loans, small loans, which were foreclosed through the depression, our experience so far is that we have recovered book cost, charge-off, the cost of rehabilitation, and a slight amount of the interest.

If that is to continue, and I can't promise that it will, nor can I see any particular reason why it shouldn't, I would say that F. H. A. loans possess no greater value to us, since we are substantially getting out whole.

Acting Chairman REECE. Do you have any idea as to whether other insurance companies have had a similar experience in that regard?

Mr. ROGERS. No; I don't. I think we pursued a more aggressive policy in regard to rehabilitation and rental and sales—I won't say than other companies, but we have pursued that policy, and I think it has been one of the reasons why we have had such a reasonably satisfactory experience, it if is a satisfactory experience. I regard it so.

Acting Chairman REECE. Then I would conclude from your statement that on your foreclosures you have suffered no loss except a partial loss of interest.

Mr. ROGERS. That's right—so far; and we have sold a little better than half of them.

Acting Chairman REECE. We hope the future may prove out as good.

Mr. O'CONNELL. Have you any opinion as to the effect on home construction, either for home ownership or for rent, of a reduction in the F. H. A. maximum rate of interest?

Mr. ROGERS. Is the question you are asking, if the interest rate were reduced on F. H. A. loans?

Mr. O'CONNELL. What would happen? I don't know. What, in your opinion?

Mr. ROGERS. I think it is very difficult to say.

Mr. O'CONNELL. I appreciate that.

Mr. ROGERS. And I am not speaking at all from a Prudential viewpoint, you realize that. If you are thinking in terms of reducing the F. H. A. rate to 4.5 percent—

Mr. O'CONNELL (interposing). Let's think of it in those terms. I hadn't.

Mr. ROGERS. Use it as an example, if you want to. I think you might find that it would deprive some builders of ready access to the money market.

Mr. O'CONNELL. Can you elaborate on that?

Mr. ROGERS. Yes, I would say that not all F. H. A. loans are as sound as others, from our viewpoint, and it would be true from the viewpoint of others. They would think those were sound enough, perhaps, at a 5-percent rate, but they wouldn't think quite so well of them under the 4.5 percent rate; consequently, they would pass them by in favor of the 5's. If too many people pass the 4.5's by in favor of the 5's, or vice versa, of course you can see what the situation would be.

Mr. O'CONNELL. You mean the situation would be less building?

Mr. ROGERS. It might. In other words, if you deprive builders of F. H. A. insured mortgages by reason of the fact that you reduce the rate to a point where some investors, at least, might feel that they would rather not have F. H. A. insured loans, because the rate may have reached the point, deducting expenses against it, where, for instance, insurance companies might feel that that was a lower rate than they could afford to take—I do not say that is a fact; it is part of the picture.

Mr. O'CONNELL. We have a 5-percent rate now.

Mr. ROGERS. That's right.

Mr. O'CONNELL. And your feeling is that with that maximum rate reduced to 4.5, institutional lenders would have, may we say, a reluctance to lend on some mortgages that they would lend on at 5 percent?

Mr. ROGERS. No, I don't say that. I think so far as savings banks are concerned, in view of their situation, where they are paying 1 or 1.5 percent interest, I should think 4.5 percent would be a satisfactory rate. They would have to answer for themselves.

Mr. O'CONNELL. I should have confined my question to insurance companies.

Mr. ROGERS. As to insurance companies, where the urge is great to meet their obligation to their policyholders you could get the rate down to a point where they would not be nearly as attractive as they are now. As a matter of fact, it seems to me the law of supply and demand is largely taking care of that situation. All over the country F. H. A. loans are being advertised by banks at 4.5 percent. I have a flock of reports in my portfolio from Cleveland, and I saw quite recently in New York 4.25 percent.

It goes to show that the F. H. A. rate has been, by reason of the law of supply and demand, reduced to 4.5 percent in cases, probably—well, in some cases. As to the 5's, I don't think anybody is getting 5's at par. We are paying a premium for all of them, and in some cases a premium and a service charge, so as a matter of fact the law of supply and demand, competition in the business, I think is taking care of the interest rate situation very nicely, and I think you might get the business into a 4.5 percent straightjacket if you automatically reduced the present rate to 4.5.

Mr. O'CONNELL. I see. You think the 5 percent straightjacket is all right.

Mr. ROGERS. I don't think the 5 percent is a straightjacket. It is a ceiling.

Mr. O'CONNELL. That is all the 4.5 would be.

Mr. ROGERS. Yes, but it might be a straightjacket. You are getting down to the point where people would have to begin to consider whether they would be willing to take that chance.

Mr. O'CONNELL. That involves a number of factors in what I have been trying to develop as the real value of F. H. A. insurance, and we really can't put a definite value on that, although a lot of F. H. A. mortgages are being traded in substantially under the 5. That is my understanding.

Mr. ROGERS. Yes.

Mr. O'CONNELL. Would like to ask you a question which I am afraid you can't answer, but I want to ask it for the purpose of then asking you to put in the record later.

I want to ask you if you have any information available as to the rate of return on the various types of obligations which your company holds in quantity, by general classes.

Mr. ROGERS. No.

Mr. O'CONNELL. You have not? Would it be possible, through some of the officials of your company, to submit for the record a general break-down for the year 1938 of the various types of investments you hold in quantity?¹

Mr. FITZGERALD. I would say it is possible.

Mr. ROGERS. If it is possible, we will promise to do it.

Mr. O'CONNELL. I don't want to put you to a great deal of trouble, but we have the figure of the stated rate for your mortgage portfolio for 1938. That is 4.83. I merely want the record to show, if I

¹ Subsequently submitted and entered in the record on August 23, 1939, as "Exhibit No. 953", see appendix, p. 5589.

can get it, what your other portfolios would show as to the stated return on other types of investments.

Mr. ROGERS. Types of loans or types of property?

Mr. O'CONNELL. Types of investment. You have, as I understand it, your portfolio classified as railroad, utilities, governments.

Mr. ROGERS. The entire investments, yes.

Mr. FITZGERALD. I think, Mr. Rogers, there is one qualification to be made. The rate that was quoted by Mr. Rogers for 1938 applied to the new loans made during that year.

Mr. ROGERS. I think I made that clear.

Mr. FITZGERALD. That rate would be a different rate.

Mr. O'CONNELL. The figure upon which that 4.83 rate was based was \$1,145,000,000.

Mr. ROGERS. Oh, no; it was the 1938 lendings.

Mr. O'CONNELL. Let's go back and clear that up.

Mr. ROGERS. In 1938 we lent approximately \$150,000,000 at an average stated rate of 4.83.

Mr. O'CONNELL. Didn't you give us some information this morning as to the stated rate of yield on your mortgage portfolio?

Mr. ROGERS. No; no; we talked about the risk situation. That again was confined to 1938.

I understand what you want. You want a break-down of the return on all types of investments of the company, and that is possible.

Mr. O'CONNELL. By general classifications. I want to see what mortgage investments you made and the rate of return, your portfolio of various types. I assume there is quite a spread between the rate of return and that, generally speaking, evidences varying degrees of risks, liquidity, and other factors which make such types of investment valuable to you.

Mr. ROGERS. It is comparatively simple.

Mr. O'CONNELL. I thought it was; that is why I asked the question. Would it be fair to ask you where you think the mortgage portfolio would stand in the general picture?

Mr. ROGERS. I think it would stand pretty well at the top.

Mr. O'CONNELL. Probably policy loans would be above it and then mortgages?

Mr. ROGERS. Mortgages; yes.

Mr. O'CONNELL. I should like to ask you only one or two more general questions. We have had quite a bit of discussion as to the—no; off the record.

Your company has acquired in recent years a substantial amount of residential real estate as a result of mortgage foreclosure. Have you any idea as to the amount of that property you hold?

Mr. ROGERS. Amount at the present time?

Mr. O'CONNELL. Yes.

Mr. ROGERS. Roughly, 177 million of unsold properties. It would stand on our books at 200 million, but that would be because of contracts of sales which are not treated as sales.

Mr. O'CONNELL. Have you any views as to the effect that this property overhanging the market has on further expansion of new construction?

Mr. ROGERS. No; I think the shoe is on the other foot—that the new construction is retarding the sale of repossessed properties.

Mr. O'CONNELL. Is that so, so that new construction is retarding the sale—well, wouldn't it work both ways, might it not?

Mr. ROGERS. No—well, of course, it does work to some extent both ways; but the answer to it is this, I think—when F. H. A. loans were limited to 80 percent of value that it was more advantageous for a man to buy a home for use at 10 percent down and 90 percent mortgage, or a 90-percent contract of sale. Now that the same man who can buy a home for 10 percent down on F. H. A., 90-percent mortgage would prefer to buy something new than something old, so that is the reason I say I think the shoe is on the other foot. I am not complaining about it, however.

Mr. O'CONNELL. Would you care to say anything about what you conceive to be a proper policy of liquidation?

Mr. ROGERS. Oh, yes. I think the policy that has been pursued, would be a sound policy—what you are really asking is, isn't it; this overhang on the market could very seriously, if it was dumped, retard development?

Mr. O'CONNELL. That has been suggested.

Mr. ROGERS. Yes; I think it would be the fact, and as a matter of fact years ago the dumping process was somewhat in evidence, but it was found that it didn't work because it constantly went down, so that there has grown up a very strong feeling that a sound policy of administration for the sake of upholding all real-estate values, not ours but everybody else's, is confined to antidumping of rentals and antidumping of sales prices; administration of the account in consonance with sound market values, whether it is rentals or sales, and by doing that I don't think we interfere at all, or very little, with new construction.

Mr. O'CONNELL. Another question. There was a certain amount of testimony adduced here within the past several days relative to the propriety of large institutions such as life insurance companies investing some portion of their assets in equities, large-scale investment housing projects. Have you anything you would care to say on that general subject?

Mr. ROGERS. Well, I don't think any insurance company should invest in an equity. I think it should invest, if at all, in total ownership.

Mr. O'CONNELL. I beg your pardon by equity I meant ownership.

Mr. ROGERS. Am I right?

Mr. O'CONNELL. Yes.

Mr. ROGERS. I would say I see no reason at all why insurance companies should not be permitted to invest in wholly owned unencumbered sound housing units, and I don't see why it should be limited to housing. My own belief is that it could be done with other sound unencumbered income properties to fully as good advantage to the insurance companies. I have in mind that many merchandisers in this country are owners of property not by choice but by necessity, that they would prefer to be tenants and not owners. I can't think of any better type of landlord than an insurance company owning that property unencumbered in the sense that it could make long-time leases with sound tenants on a basis of amortization of the building and a substantial return on the investment.

That statement is a little irrational, but since the United States, so far as I know, is the only country in the world where life insurance

companies are stricted wholly to evidences of debt, it seems to me if there is anything wrong with that program that it would have been discovered long ago in other countries and would not be permitted.

Mr. O'CONNELL. In other countries such institutions as yours are permitted to invest in unencumbered real estate and substantially in this country it is so restricted, and your company is not permitted, generally speaking, to own——

Mr. ROGERS. No, the only time we are permitted to buy real estate, of course, is under special statute. In New Jersey we bought some property in conjunction with the city of Newark and built some slum clearances, as much for the social side of it as the practical.

Mr. O'CONNELL. Mr. Chairman, I have no further questions to ask Mr. Rogers.

Acting Chairman REECE. Any questions? We thank you very kindly, and Mr. Fitzgerald, for your testimony. You are excused.

When the committee recesses today it will recess until 10:30 Wednesday, July 5, and, Mr. O'Connell, would you care to make a statement of your plans at that time?

Mr. O'CONNELL. I should like to make a short statement in explanation of the fact the committee is going to recess at the moment and not convene until July 5. We had expected to call Mr. Bodfish this afternoon, and Mr. Bruere of the Bowery Savings Bank tomorrow morning, to give the committee some more information about the financial side of housing. Unfortunately, the pressure of other duties has made it impossible for most of the committee members to be present. The end of the fiscal year coming tomorrow makes it as a practical matter impossible for most of the legislative members to be present, and other pressing affairs are making it impossible for some of the other members. We feel that the testimony of Mr. Bodfish and Mr. Bruere is of sufficient importance as to justify us in asking them to bear with us and to appear before the committee next Wednesday, rather than today and tomorrow, at which time we hope we will be able to have a larger representation on the committee.

I think that is all I have to say, so at that time on the fifth of July, subject to the convenience of the witnesses that I have referred to, we hope to convene at 10:30 and to hear Mr. Bodfish and Mr. Bruere. If there is any change, of course we can make an announcement between now and then.

Acting Chairman REECE. The committee will stand in recess.

(Whereupon at 3:15 p. m. the committee recessed until 10:30 a. m., Thursday, July 6, 1939.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, JULY 6, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:55 o'clock a. m., pursuant to adjournment on Thursday, June 29, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney, presiding.

Present: Senator O'Mahoney (chairman), Representative Williams, Messrs. Arnold, Henderson, Lubin, O'Connell, Patterson, and Brackett.

Present also: Willard L. Thorp, Department of Commerce; Willis J. Ballinger, Federal Trade Commission; Gordon Dean, Department of Justice; Theodore J. Kreps, Economic consultant to the committee; Lowell J. Chawner, Department of Commerce, and Peter A. Stone, coordinator of construction studies for the committee.

The CHAIRMAN. The committee will please come to order.

Mr. O'Connell, are you ready to proceed? Will you call the first witness?

Mr. O'CONNELL. Before doing that, sir, I would like to make one reference to testimony that was presented before the committee last week. On Wednesday, Mr. Schnitman gave some information to the committee relative to the operating costs on six large-scale rental housing projects, three of which were F. H. A. insured projects.¹ The testimony indicated that in one of the F. H. A. projects, Brentwood, I believe, in the District of Columbia, there was a vacancy rate of some 24 percent in the period covered by the survey, and in another project, in York, Pa., a 9.3 percent operating loss for the same period was indicated. Mr. Schnitman's testimony did not make it entirely clear that the period taken was the first year of operation of these projects, and in one case, the Brentwood project, the project was not in operation during the entire year 1938, so that the operating loss in one case and the percentage of vacancies in the other case did not accurately express the existing situation insofar as those two projects are concerned.

Congressman Williams asked several questions along the line that I have been discussing, and the Federal Housing Administration have since that time written a letter to Congressman Williams pointing out the fact that at the present time the Brentwood project, in vacancies, is some five-tenths of 1 percent, and that in the case of the other project on the basis of its current operations the operating loss indicated on the chart is no longer a fact, so with Congressman Williams approval and at his suggestion I should like to offer for the record the

¹ See *supra*, pp. 5015-5040. See also "Exhibit No. 855," *supra*, p. 5018, and appendix, p. 5482.

explanatory letter from the Federal Housing Administration relating to Mr. Schnitman's testimony as to the two projects I have referred to.

The CHAIRMAN. That was written by whom?

Mr. O'CONNELL. The letter is signed by Miles L. Colean, Assistant Administrator of the Federal Housing Administration.

The CHAIRMAN. The letter may be admitted.

(The letter referred to was marked "Exhibit No. 864" and is included in the appendix on p. 5486.)

Last week testimony was presented before the committee relative to the importance of the building industry and its position in the national economy, the important place in it occupied by residential construction and the fluctuations in this field, the character of the need for dwelling accommodations, its extent, and the extent to which this need is being met. It was demonstrated, and as to this I believe there can be no dispute, that of recent years the construction industry had done little or nothing in the way of providing adequate dwelling accommodations for families in the so-called middle-income group, by which I mean those having an income approximately between \$1,000 and \$2,000 per year.

Witnesses pointed out that in order to meet this present unsatisfied demand, it is essential that the elements of cost going to make up the present too high total cost, be reduced to a point at which persons in this so-called middle-income group can enter the market either as home owners or renters. The very great importance of annual costs, by which is meant the periodic outlays after occupancy, as distinguished from original capital cost, was explained by several witnesses and figures were given showing the relative effect on the so-called rental dollar of comparable reductions in finance costs as against labor and material costs.

At the time of adjournment last Thursday, one witness had been called who discussed with the committee the importance, from the point of view of a large institutional lender, of finance as a factor in both annual costs and capital costs. Today additional witnesses will be called who will discuss the same topic and will give the committee their views as to the cost of finance in the privately financed housing field and their views as to what, if anything, can be done to reduce this element of cost.

The CHAIRMAN. Do you solemnly swear that the testimony you are about to give in this procedure will be the truth, the whole truth and nothing but the truth, so help you God?

Mr. BODFISH. I do.

TESTIMONY OF MORTON BODFISH, EXECUTIVE VICE PRESIDENT, UNITED STATES BUILDING AND LOAN LEAGUE, CHICAGO, ILL

METHODS AND PRACTICES OF BUILDING AND LOAN ASSOCIATIONS

Mr. O'CONNELL. Mr. Bodfish, will you state your name and address to the reporter for the record, please?

Mr. BODFISH. My name is Morton Bodfish. My address is 333 North Michigan Avenue, Chicago. My business connection: I am executive vice president of the United States Building and Loan League. That is a national trade organization of some 4,000 savings and loan associations operating in local communities all over the

country. We have some \$6,000,000 in home mortgages represented in the organization.

Mr. O'CONNELL. I understand you are the executive vice president of a trade organization known as the United States Building and Loan League.

Mr. BODFISH. That is correct.

Mr. O'CONNELL. And the number of members in the league is 4,000.

Mr. BODFISH. Four thousand, and some forty-nine State organizations, which includes the District of Columbia.

Mr. O'CONNELL. Do you happen to know how many organizations—not organizations, but how many building and loan or savings and loan associations there are in the country?

Mr. BODFISH. There are slightly under 10,000 of these institutions. Represented in our organization, however, are more than 80 percent of the assets. The institutions not in the organization are small institutions in Pennsylvania and Maryland; and a few scattered elsewhere that do not bulk substantially.

Mr. O'CONNELL. You represent something like 50 percent in number but 80 percent of the assets in that type of organization?

Mr. BODFISH. That is correct.

Mr. O'CONNELL. Just to give the committee and me a better picture of the organization, are there any particular qualifications for membership in the organization?

Mr. BODFISH. Well, we have required that all our member institutions be subject to State or Federal supervision and inspection.

Mr. O'CONNELL. Will you please speak a little louder, Mr. Bodfish?

Mr. BODFISH. Yes, sir. We have required that all our member institutions be subject to State or Federal supervision, examination, and inspection, so that we have in the organization only institutions that are under the general jurisdiction of either a State supervisory authority, such as a building and loan superintendent, the Insurance Commissioner, or under the supervision of the Federal Home Loan Bank Board. Also we have general membership requirements dealing with practices, solvency, and State league affiliation.

Mr. O'CONNELL. How many so-called Federal savings and loan societies are in your group?

Mr. BODFISH. Something under 1,000 in our organization. I might say that about two-thirds of these are former State-chartered institutions which have been converted to Federal-chartered institutions, just as a State bank sometimes becomes a national bank.

Mr. O'CONNELL. What is the average size of the institution in your group?

Mr. BODFISH. The average size is slightly under \$1,000,000; I think something like \$980,000 is the average size of the institution so it is slightly under a million.

Mr. O'CONNELL. Would you have any general information as to the size of the largest as against the size of the smallest?

Mr. BODFISH. The smallest institutions will run down as low as five or ten thousand dollars. The largest institution is slightly in excess of \$50,000,000, and is located here in Washington, D. C. The Perpetual Building Association is the largest member of our organization; as a matter of fact, the largest institution in the country.

Mr. O'CONNELL. Geographically, are there members of your organization in all States?

Mr. BODFISH. There are members of our organization in all States, the District of Columbia, eight in Hawaii, and one in Alaska.

Mr. O'CONNELL. As between States is there a high degree of concentration in some States and a very few of your members in others?

Mr. BODFISH. I would say that it roughly follows the pattern of the urban population. In other words, in the industrial States, such as Pennsylvania, Ohio, New Jersey, you find a larger number of institutions and a concentration of assets. However, the institutions are scattered into practically every town and county in the country, but it follows the urban population pattern very, very definitely.

Mr. O'CONNELL. Would you care to give the committee a brief bit of information relative to the building societies in Great Britain, as to whether there are any similarities or dissimilarities between those organizations and yours? Historically, I take it that there probably is a connection.

Mr. BODFISH. The British building societies, which are counterparts of the American building and loan associations or savings and loan associations, were founded as friendly societies, community cooperatives, about 160 years ago. The movement there has developed and the American movement has moved along parallel lines, starting in this country about 50 years later. Our first institution in this country was organized in 1831, in Frankford, Pa., now part of Philadelphia, and was called the Oxford Provident Building Society. That came about 50 years after the first British societies. At the present time in Great Britain, including Scotland and Ireland, there are about 1,000 British building societies. Since the World War, which was the beginning of Britain's modern housing movement—they had practically no house production in the 5 years preceding the World War or during the World War—these British societies have financed about 2,000,000 new homes, that is about 80 percent of the privately constructed homes.

The CHAIRMAN. What were the circumstances that brought these societies into existence?

Mr. BODFISH. The desire of people in the community to gather together a little fund of money which could be loaned to people in the working class, so to speak, for the acquisition of homes, and that has been their sole business all through their existence. It is a mutual fund of money in which the funds are all loaned back to members of the societies in the form of long-term amortized loans secured by real-estate mortgages for the building or the acquisition or the modernizing of homes.

The British societies have one development that has not been exactly parallel with the United States development in that there is a certain amount of branch operation among the larger societies. For example, the largest building and loan association or building society in Great Britain is called the Halifax Building Society. It is an institution of over 100,000,000 pounds sterling total assets. The second largest institution is about 55,000,000 pounds sterling assets, also using branch operation to a certain extent.

The CHAIRMAN. I take it that prior to the formation of this movement, home ownership among the working classes was practically unknown?

Mr. BODFISH. It was unknown, Senator, except in those fortunate circumstances where they were able to gather together enough for an outright purchase, and even in Great Britain with the splendid work of the societies, their home ownership ratio to the total population is still only about half what ours is. In 1930 about 20 percent of the people in Great Britain owned their homes; at the same time our percentage was about 48 percent of our urban population.

Mr. O'CONNELL. You don't mean prior to building and loan societies in Great Britain, there was no way a person could borrow money to build a home?

Mr. BODFISH. There were practically no facilities as far as I could ascertain for long-term amortized mortgage credits. As a matter of fact, in Great Britain the commercial banks never make a mortgage loan. A few of the insurance companies do. The savings banks are not engaged in the mortgage business. Practically the whole responsibility of financing the small-home purchaser and financing the whole recent building boom that has attracted so much attention in Great Britain has fallen on the shoulders of these building societies. As a matter of fact, I think British businessmen generally agree that it was the building boom financed by the building societies that was really the operative factor in bringing them out of the depression of '31 and '32.

Mr. O'CONNELL. Mr. Bodfish, I have heard it said in terms of size that the Building Societies in Great Britain were substantially larger units than the savings and loan societies here and were more comparable in size to the life-insurance companies in this country. Would you happen to know anything about that?

Mr. BODFISH. There are about 1,000 societies all together. Twenty five of the societies are very large institutions.

Mr. O'CONNELL. Would you count the Halifax as one of the larger or would the branches be included?

Mr. BODFISH. No, sir, I am counting that as one society. There are still in Great Britain about 950 local societies that do not use branches in any way and about 25 of the large ones use branch operations.

Dr. LUBIN. Have you any idea as to what percentage of the total business is written by the 25 large ones?

Mr. BODFISH. The percentage of houses built?

Dr. LUBIN. Mortgages underwritten.

Mr. BODFISH. I have seen a figure. I wouldn't want to be certain of the statistical accuracy, but I think you will find that the 25 largest societies do about two-thirds of the business. It is between 60 and 70 percent, I don't recall correctly. They are corporate cooperative institutions practically identical to our savings and loan institutions, the one difference being that they are generally much larger institutions and we do not use branches to any great extent, as they do.

Mr. O'CONNELL. Do you have any accurate information as to the current interest rates being charged by the Building Societies of Great Britain?

Mr. BODFISH. Most of the larger societies at the present time are operating on a $4\frac{1}{2}$ and 5 percent basis, with about a 21-year loan. However, that does not tell the whole story, in that practically all of the mortgages written by those larger societies include a hedge

against a change in the interest rate situation. Most of the mortgages contain a clause that either the society may call the mortgage on a 6-month notice, or if the Bank of England rate moves up 1 percent, the society has the right to increase its rate on a specific mortgage to the borrower, but not in excess, as I recall in most of the mortgages, of 1 percent. So they have a hedge.

Mr. O'CONNELL. By hedge, you mean they have a right to a periodic adjustment of the interest rate, depending on the bank rate?

Mr. BODFISH. Depending on the bank rate.

Mr. O'CONNELL. Either up or down?

Mr. BODFISH. The society always has the right under their rules and bylaws to adjust mortgage rates downward. As a matter of fact, the general refunding operations which I think came along about '33—I am not sure of the date—was when the societies generally adjusted to 4½ percent. Prior to that they were on a 5½, some on a 6 percent basis. Some of them didn't adjust the business on their books but merely on the new business.

I think there is a very interesting, significant thing there, that they didn't adjust their rates downward until they had a colossal flow of savings into these institutions so that they had a flow of savings and a flow of money that made it easy for them to make an adjustment. I think we have tended a bit to attempt to adjust our interest rates, as a matter of general public policy, somewhat ahead in this country of the flow of savings into the specialized home-financing institutions. I might say that the institutions in Great Britain have a somewhat lower cost of money, due to the fact that they take deposits as well as take savings on shares. Our structure in this country is almost exclusively a share structure. The British building societies pay about 3 or 3½ percent on shares and 2½ percent on deposits, giving them an average cost of money of around 3 percent.

Mr. O'CONNELL. And you say in this country the building and loan associations still do substantially all their business on a share basis?

Mr. BODFISH. With the exception of two or three States, it is entirely on a share basis.

Mr. O'CONNELL. What dividends are ordinarily paid on those shares at the present time?

Mr. BODFISH. At the present time dividends are typically 3½ and 3 percent, with some institutions in some smaller communities still on a 4-percent basis and a few institutions in the northeast that have gone to a 2½-percent basis.

Mr. O'CONNELL. When you refer to the purposes of the building societies in Great Britain, I understood you to indicate that the purposes generally were to encourage thrift and at the same time to stimulate home ownership. Would that be a fair statement of the purposes of the organizations that you represent?

Mr. BODFISH. Yes, I would say so. Our institutions are all thrift and savings institutions and lend their money on home mortgages and that gives us a balanced situation. That is, management reconciles the interests of the investor with the interests of the borrower.

Mr. O'CONNELL. Was it that in the first instance, or are they generally speaking organizations composed of investors and in seeking an outlet for their investment they encourage home ownership? It is just

a matter of emphasis. I don't know where the emphasis should be placed.

Mr. BODFISH. That is just a question of whether the right leg is more important than the left. There are five or six investors for every borrower, or five or six people that come into the institutions to deposit savings to one that makes a mortgage loan, and, of course, there are quite a number of people investing in the institutions entirely as a safe outlet for funds, and there is also a substantial number who are accumulating enough for an ultimate down payment on a home or a home purchase. They feel by accumulating their savings in the building and loan association it establishes their name and credit with a mortgage lending institution to which to turn for credit if they build a home.

Mr. O'CONNELL. I gather your organizations are mainly concerned with home ownership in distinction with financing rental projects. Would you have any feeling as to whether or not rental housing which has been referred to from time to time before this committee should be encouraged, or whether your organization is in or is going into that field?

Mr. BODFISH. Our institutions are not prominent or active in the rental field. We are interested primarily in the home-ownership idea. The fact is, 90 percent of our mortgage portfolios are in home mortgages, and 10 percent in miscellaneous property including a little rental property. As a matter of fact, Mr. O'Connell, we are rather deeply concerned as a group over the growing emphasis on rental property and housing, rather than home ownership and the single-family home with its detached building and its individual plot.

Mr. O'CONNELL. Do I understand you to mean that you do not think that large-scale rental housing should be encouraged?

Mr. BODFISH. I state very frankly that I can't see any more reason for the Federal Government, for example——

Mr. O'CONNELL (interposing). Let's not talk about the Federal Government, let's talk about rental housing apart from the Federal Government.

Mr. BODFISH. Can I talk about public policy?

Mr. O'CONNELL. I would prefer for you to tell whether you think rental housing should be encouraged as against home ownership.

Mr. BODFISH. Encouraged by whom, by individual building and loan associations, by public policy, by the chairman of the committee, or whom?

Mr. O'CONNELL. Just encouraged.

Mr. BODFISH. No, I don't think that rental housing should be encouraged. I think that rental housing is essentially a commercial enterprise just like a factory or any other business in which people invest capital in the hope of getting a rental return. I think in home ownership you have some additional social and economic implications which justify considerable encouragement and assistance that you might not give to an ordinary commercial enterprise, and I regard rental housing as an ordinary commercial enterprise.

Mr. O'CONNELL. A commercial enterprise is not necessarily something that should not be encouraged. The fact that rental housing might be developed on a scale that would return a profit to the person that invests in it wouldn't seem to me to be an argument against it.

Mr. BODFISH. I am a great believer in private enterprise and encouraging private enterprise, but on the other hand I think it is a different thing to use the influence and even the credit by indirection of our Federal Government to develop rental housing as versus home ownership or versus any other type of commercial enterprise.

Mr. O'CONNELL. It has been suggested, I don't recall whether any one particularly referred to it before this committee, that in thinking in terms of the lower middle income group that we have been discussing, of persons having an income of one thousand and two thousand dollars a year, that it might be in encouraging such people to invest their small savings in home ownership, we might in the long run be doing them a disservice. Have you any feeling on that subject? I am not espousing that view, I am merely indicating it has been suggested.

Mr. BODFISH. I think that is a view that has been discussed a great deal and I am frank to say that while there are occasions when industries or families move that home purchase has its problems, I don't believe those problems face 90 percent of the people in the one-thousand to two-thousand income group.

The CHAIRMAN. What problems do you mean when you say they don't face 90 percent of the people in this income group?

Mr. BODFISH. I mean this, Senator, that the argument against home ownership in the low-income groups, between one thousand and two thousand dollars income, is that it destroys their mobility as wage earners. If they buy a house in Detroit and the auto factory closes down and they have to go to Toledo to work, they have a home on their hands and it would have been better had they not made a down payment and invested their savings in a home.

I think that problem does face some families. I think the great bulk of families, probably 90 percent of them in American communities—

The CHAIRMAN (interposing). Home ownership is an indication of economic independence, isn't it?

Mr. BODFISH. Economic independence, stability, interest in the community, responsibility on the part of the individual in local business and governmental affairs—it has a whole galaxy of social and economic and political implications that are highly desirable.

The CHAIRMAN. If a person is not economically independent, it is difficult for him to become a home owner, is it not?

Mr. BODFISH. No; I don't think so. I think that one of the ways in which we have attained practically a 50-percent home ownership ratio in our urban families at the present time has been that folks in very modest circumstances have used a home purchase transaction and an orderly payment for that home.

The CHAIRMAN. When you speak of home ownership, do you mean outright ownership, or equity ownership?

Mr. BODFISH. Equity ownership is the first step for the person of modest means.

The CHAIRMAN. I am just trying to get the picture as to what constitutes this 50 percent of home ownership. How much of that is equity ownership merely and how much of it is outright ownership?

Mr. BODFISH. A great deal of it, I don't know the proportion, a substantial amount of the equity ownership is found among people that have purchased, made a down payment and are in the process

of eliminating the debt from their homes, and a great deal of it of course is outright ownership. We look upon the person who owns an equity and has an orderly program for retiring that indebtedness as a home owner who is in the process of becoming a debt-free home owner?

The CHAIRMAN. How many actually become debt-free?

Mr. BODFISH. A great many of them.

The CHAIRMAN. What proportion of the home owners, of this 50 percent of home owners are debt-free owners?

Mr. BODFISH. I don't know statistically. It would just have to be a guess.

The CHAIRMAN. What would you guess?

Mr. BODFISH. My guess would be—let me think of a rough calculation for a moment; I would guess that two-thirds of them, between a half and two-thirds own their properties outright and completely.

The CHAIRMAN. That is more than I would have anticipated.

Dr. LUBIN. You are talking now about all owners, or just municipal owners?

Mr. BODFISH. Urban home owners.

The CHAIRMAN. You are talking of all owners?

Mr. BODFISH. Nonfarm, excluding farm. You see, before the depression, we had about a third of the mortgage debt in amount, and about a half in number of homes, and we had about something over 2,000,000 mortgages. I think that as you rough the thing up, you will find that more than half of the urban home owners own their homes outright and they are completely paid for. I do not have figures at hand for it. That is an opinion.

Mr. O'CONNELL. No figures of that sort have been presented to the committee. As I recall last week evidence was presented to the effect that there were seventeen and some three-tenths billion dollars of mortgages on urban homes,¹ but we have no figure on it to cover the question you raised, and yours is just a guess.

Mr. BODFISH. Mine is just a guess.

Dr. LUBIN. Mr. Chairman, there are figures on the total number of homes in the United States that are mortgage free, and that figure is not in excess of one-half. I don't remember the exact figure but I know it is not in excess of one-half.

The CHAIRMAN. Does that include farm homes?

Dr. LUBIN. That includes farm homes as well, and it seems queer to assume that two-thirds of the homes of urban owners are mortgage free when only half of all the homes in the United States are mortgage free.

The CHAIRMAN. It seems extraordinary to me, but of course you are actually only guessing and Mr. O'Connell hasn't the figures. Dr. Lubin, I think it would be very interesting if you would procure for the record at this point the figures to which you refer.² It seems to me that the Census Bureau ought to have some information upon home ownership.

Dr. LUBIN. There are figures available.

Mr. BODFISH. I don't think they have been tabulated since 1920 on home ownership.

¹ Supra, p. 5042.

² Dr. Lubin subsequently supplied figures regarding the percentage of mortgaged United States homes for the years 1934-36. See infra, p. 5111.

Dr. LUBIN. You had your real-property inventory in 1935 which would cover some of those points.

The CHAIRMAN. Would you make it your business to get some of that information?

Dr. LUBIN. I would like to go on with this line of questioning. Do you have any ideas as to how many people lost their homes through foreclosure in 1930 and 1935?

Mr. BODFISH. None of them lost their homes through foreclosure that owned them outright.

Dr. LUBIN. How many people actually lost their homes?

Mr. BODFISH. I don't know.

Dr. LUBIN. Do you have any figures for any particular city, for your own association?

Mr. BODFISH. Our institutions had about seven and a half billion in mortgages at the peak of 1929, and we repossessed about one billion and a half properties, which would mean—I have no figures on a city—but roughly it would be about one out of five, wouldn't it?

Dr. LUBIN. Every fifth family lost their home?

Mr. BODFISH. Who had a mortgaged home.

Dr. LUBIN. With you people?

Mr. BODFISH. That is possible.

Dr. LUBIN. Don't you think that is an argument against home ownership for certain income groups?

Mr. BODFISH. I don't think it is a conclusive argument. I think, Dr. Lubin, it can also be argument against real-estate booms and excessive building which we engaged in the twenties, and purchases that were unwisely made beyond income. In our experience we had more foreclosures in the higher-income groups who bought beyond their means and the like, than the small-income people.

Dr. LUBIN. I think that would be true in certain communities, but if you take any industrial community, take the early thirties, do you have any figures showing the relative percentage of foreclosures for the small-income groups in your large cities where people lost their jobs as compared with other groups?

Mr. BODFISH. I do not have any figures. I think the H. O. L. C. figures would be helpful because they refinanced many of those mortgages.

Dr. LUBIN. Do you think a man earning \$25 or let's say \$30 a week and has a job in a factory and has no assurance of steady employment should commit himself to a down payment and regular monthly payments, knowing all the time that at any moment he may lose his job and be unable to continue those payments?

Mr. BODFISH. If a man has no assurance of steady income, I don't think he should buy a house. He shouldn't buy an automobile or anything else.

Dr. LUBIN. Do you know of any industrial workers who do have assurance?

Mr. BODFISH. Well, I think the majority of industrial workers in this country have, based on past experience, reasonable assurance of steady income, continued employment.

Mr. O'CONNELL. I doubt if most industrial workers would agree with you on that.

Dr. LUBIN. I am not arguing against home ownership, but I am raising the question whether or not a man with an income of \$1,500,

who is married and has a family, who consequently is unable to set aside any surpluses to take care of emergencies of unemployment, should be urged—I can't say permitted, because he has the right to do anything he wishes—whether our institutions should so organize themselves as to make it easy for him to purchase a home.

Mr. BODFISH. Well, I would agree with you in, let's say, industries of very uncertain employment conditions. Certainly a man in New York or Chicago with a \$1,500 income shouldn't be embarking on a home purchase involving \$4,000 or \$5,000 or \$6,000. But I think that brings us to a very important point, however. You take last year, our institutions made 365,000 loans, that is in 1938, 365,000 loans. The average loan was under \$2,500. That is, almost half the average size of the F. H. A. on this insured-mortgage plan. Those loans were made largely in smaller cities of the country. For example, over half of our institutions are in towns under 25,000 population. A third of them are in towns under 10,000 population.

I was rather interested in preparation for this experience to look at the figures on the building of individual family homes. Something over 160,000 of them, or 63 percent of the single family homes built in 1938 were built in towns under 25,000.

The CHAIRMAN. What proportion of those homes are now held by the persons who originally undertook to pay for them? In other words, what turnover is there in this group?

Mr. BODFISH. Well, can I come to the question in a minute? I was speaking of the homes built in 1938 and developing Dr. Lubin's question of \$1,500 income. I think a \$1,500 cash income in these smaller cities represents ability to purchase housing and to maintain home ownership and to carry it out. I am convinced that much of the whole mass market for small homes is in the cities under 25,000 where incomes ranging as low as \$1,000 on up to \$1,500, or probably \$2,000 cash incomes are in the upper level of the town; and their recipients can buy, build, and own their homes.

Turning to Senator O'Mahoney's question—the turnover in ownership—I am frank to say that I don't know. In our institutions we have a very substantial portion of our borrowers who carry their loan transactions right straight through until the debt is completely extinguished. I realize that we probably have a much greater experience in that connection than other lenders for the reason that for all these 110 years, all our loans have been on a monthly amortization basis, which means the loan was fitted to the man's income, his ability to pay, and, of course, it is a plan now that has been adopted by the F. H. A. and it is being adopted by savings banks and insurance companies, and I think is one of the very significant improvements.

The CHAIRMAN. It is your experience, then, the home owner is relatively stable?

Mr. BODFISH. We think so.

The CHAIRMAN. And those who undertake to purchase a home, even though they begin by a very small down payment, usually go through and complete the budget.

Mr. BODFISH. That is right.

I can cite, for example, one institution with whose internal figures I am quite familiar, which has 1,360 loans, I think, at the present time. All have been made in the last 7 or 8 years. There are 10 delinquencies in the whole 1,360, and those loans are 66%, 75 percent, and even 80-percent loans.

The CHAIRMAN. Then it follows there must be some degree of stability of employment among those home owners?

Mr. BODFISH. That is right. Of course, that is one of the processes of selection in making the loan.

Mr. O'CONNELL. What area is that in?

Mr. BODFISH. Chicago area.

The CHAIRMAN. In other words, you select, in making the loan, the borrower who gives evidence of stable employment.

Mr. BODFISH. Stable employment, good character, disposition in past history to pay his debts, and not attempting a home purchase beyond his means.

The CHAIRMAN. What proportion of these borrowers are employees?

Mr. BODFISH. Employees as contrasted to——

The CHAIRMAN. To principals.

Mr. BODFISH. Oh, I would say the large proportion of them are persons employed in offices or industry, or are small tradesmen.

The CHAIRMAN. Would you say that more than 90 percent of them are employees?

Mr. BODFISH. I would not think that high. You get a lot of what you call small proprietors in that group that own a little community business, a filling station, a grocery store. That class of people is very interested in acquiring and paying for its homes. They are not executives, or employees. On the other hand, they are not high-income people at all.

The CHAIRMAN. What would be the proportion?

Mr. BODFISH. Oh, if I had to guess I would say 80 percent of them are employed by business concerns of which they are not the principals. Probably 20 percent of them are small proprietors of one kind and another.

The CHAIRMAN. And would you say that of 80 percent their employment is relative stable?

Mr. BODFISH. Yes.

Dr. LUBIN. If you select your loans on that basis, then what happens to the man who doesn't have regular employment, who works in a factory that may shut down any day, or that because of seasonal and other factors may shut down for 3 or 4 months in a given year? Granted that through your institutions we can provide for people with stable employment, how are you going to provide housing for this other group, if rental housing isn't stimulated?

Mr. BODFISH. I am quite inclined to agree that if a person does not have stable employment he should not embark upon home purchase.

The CHAIRMAN. One answer might be that stable employment should be encouraged.

Mr. BODFISH. I think, in answer to Dr. Lubin, there is a great aggregate of housing available for the people of middle incomes at the present time. I have never been able myself to be convinced that everyone should have a new house. I think there is a lot of automotive transportation in this country in the hands of middle-or low-income groups that could not afford a new Packard 120 or a Ford, but do acquire a second-hand means of transportation. The same thing applies, to a great extent, in connection with housing. Often times people of low income can buy better housing if it comes through the filtering-up process, as we speak of it, than they could if they

attempted to buy new housing. Personally, Dr. Lubin, I don't feel that the level of rents has yet been advanced or has been balanced with building costs to a point where rental housing is a good business proposition. I think we are getting some due to pretty generous financing. I think we can get an Empire State building in every town and city of the United States, if we have enough high-percentage money involved and available.

Dr. LUBIN. Would you say it is primarily a question of rentals adjusting themselves to building costs, or might it not also in part be building costs adjusting themselves to rentals?

Mr. BODFISH. I think we can accomplish the same results either way. It is a question of which is going to be the most adjustable. I think when you come to building costs you have so many factors—it is such a complex industry that substantial adjustments are going to be somewhat difficult. On the other hand, I think there are very minor upward movements, in response to low vacancies in the rental level which will change the whole position regarding rental housing, existing housing. I think existing housing has to be somewhat more desirable from a business point of view before you can get a large volume of new rental housing.

Mr. O'CONNELL. You made a general observation a moment ago that rather interested me. There has been a substantial amount of testimony before this committee recently to the effect that substantially no construction has been done in recent years which provides adequate dwelling accommodations for persons with an income of less than \$2,000 a year. There has been evidence also, or testimony, to the effect that there is certainly a great unsatisfied need for adequate dwelling accommodations, which in effect means that there is a large untapped market for building, which in turn would indicate the possibility for expansion in the construction industry. Do I understand you to mean that you do not believe there is any need for increased activity in the construction field for that middle-income group?

Mr. BODFISH. That is a difficult question, because you use two concepts. You say "need" and then you also say "market." I think there is a need for improved housing, additional housing accommodations in the country. I was very impressed with Dr. Lubin's analysis, which arrived at so many very sensible conclusions regarding a mean actual production, as contrasted with some of the astronomical figures that have been based, I think, exclusively, on the 1927 Building Volume.

Mr. O'CONNELL. We will use Dr. Lubin's figures, which were, I think, 525,000.

Mr. BODFISH. I think there is a reasonable need over a period of time for 525,000 dwelling units. I don't think there is a market this year, or will be next year, for that number of units.

Mr. O'CONNELL. Let me ask you this at that point. Would there be a market for that number of dwelling accommodations if the cost of home ownership could be substantially reduced? I take it when you are thinking in terms of the market you mean people who are in position to buy dwelling accommodations.

Mr. BODFISH. Effective demand. That is, folks that are ready, willing, and able. I think it is axiomatic that as you reduce the cost of any desirable commodity you widen the market for it. How many

additional home purchasers a certain fall in costs would bring in to the market, I confess I don't know. I think there are a lot of deterrents to home ownership which are very real, that are affecting the thinking of people. I don't need to go into them. They are familiar to everybody on the committee—everything, starting with taxes, and general business conditions, and so on.

Mr. O'CONNELL. In terms of the market that we are discussing, that is this middle-income group, I take it that practically all the deterrents to which you refer revolve around cost of one item or another, or many items.

Mr. BODFISH. I think they partly revolve around cost. I think they partly revolve around the existing properties that are available, the undigested, institutional holdings, and after all, house purchase is a long-time commitment. It involves a large capital sum in relation to families. It is probably the largest financial transaction the family engages in, in the course of their lifetime. And while it may be trite, they do it in much greater volume when they are optimistic about the future, about their employment, about business conditions.

Mr. O'CONNELL. And they do it in great volume when they have enough money to buy a house.

Mr. BODFISH. That is right. You look back on the twenties when we had a real-estate boom. That is what we have been busy getting over, in part, for the last 6 or 7 years. People bought houses without much regard to the level of costs that existed, to the costs of financing, and the like.

Mr. O'CONNELL. The course of this hearing so far has been generally to explore various items of cost that go to make up home ownership, whether they be capital costs or annual costs, and trying to keep that in mind we would like to discuss with you mainly the question of finance costs, and whether or not it would be reasonable to expect a reduction in that rather important item of cost. Can you tell me first what income group building and loan societies generally reach in their financing? You say that the average mortgage placed by building and loan societies in 1938 was \$2,500? Is that right?

Mr. BODFISH. That is right. The Federal Home Loan Bank System averaged it at \$2,200.

Mr. O'CONNELL. That is the average of all.

Mr. BODFISH. That is the average of 3,800 institutions on which we have complete statistics.

Mr. O'CONNELL. Taking \$2,500 as a mortgage figure, I take it that the cost of the home would be something in excess of \$3,000.

Mr. BODFISH. I think it means it involves properties, new and old, ranging anywhere from \$2,000 to \$4,500, generally speaking.

Mr. O'CONNELL. Do I understand you to mean that building and loan societies in your opinion are doing a substantial amount of financing which will redound to the benefit of the group that we are discussing between \$1,000 and \$2,000 a year?

Mr. BODFISH. I think there is no question but what the building and loan associations have dealt with an income group that was much further down the scale than had been reached by other financial institutions. I think their century of success and much of the good will that they have grows out of the fact that they have dealt with credits for people of very modest income. In the smaller cities, the cities under 25,000, I would say the bulk of our business is from people who have incomes of \$1,000 to \$1,500.

Mr. O'CONNELL. Let's talk a little more specifically about interest rates. Can you give us some accurate information as to the current interest rate being charged by members of your organization?

Mr. BODFISH. I do not have statistical information. I would have to generalize. I would say that our lending rates are predominantly 5 and 5½ percent at this time, with considerable at 6 percent and some as low as 4½. I realize I have named four figures, but they are based upon informed opinion because most of our institutions now, instead of operating as they did a half century ago on the same rate to everyone have what we call a variable rate. A man comes in with a high percentage loan, he pays a little higher rate than a man who has a 50 percent loan, and so it has become a more mixed picture and a more complex one rather than a simple one.

Mr. O'CONNELL. Have you any first-hand information about any particular building or savings and loan society to which you could refer?

Mr. BODFISH. I can be candid about the institution in Chicago I mentioned a few minutes ago. Our average interest income or rates on new mortgages is 5¼ percent at the present time. That means they are 5½ and 5 percent, about half and half.

Mr. O'CONNELL. You mean the average stated rate?

Mr. BODFISH. That is the rate paid by the borrower except for the title charges, the appraisal fees, and those incidentals at the time of the making of the loan. I might say that generally speaking throughout the building and loan picture the rates have fallen. We calculate about 1½ percent since the predepression levels. It used to be very common in the newer parts of the country where it is difficult to get capital together for the rates of these institutions to be as high as 7 percent, 7.2

Mr. O'CONNELL. What would you say are the major factors that go to make up that effective interest rate?

Mr. BODFISH. Well, in our institutions I think the thing is fairly simple for the reason that we are engaged exclusively in the one business of home credits. I think your first item is the cost of money, in other words, the cost of persuading people to be thrifty, and thrifty in a particular institution. We find that is about 3 or 3½ percent at the present time. We feel that there is a floor on the thing, about 3 percent.

Mr. O'CONNELL. Why is that?

Mr. BODFISH. We feel that the United States savings bonds and investments of that kind which are yielding about 3 percent, establish a lower level below which we can't attract money.

Mr. O'CONNELL. You mean if you don't offer 3 percent or better investors won't put their money into institutions?

Mr. BODFISH. Not in the volume we can use because the Government is offering a direct Government obligation at more favorable rates. The yield on savings bonds is 2.9 over a long period.

Mr. O'CONNELL. The rate that savings banks pay is substantially less than that, is it not?

Mr. BODFISH. That is true. The whole question of public psychology in connection with bank rates is a perplexing one; they are putting money in savings departments of banks that offer 1 percent; I guess they are going to put it in the Chase now at no percent, if I read the announcement correctly, but when we take a community institution and tell people we are going to invest all their money in

long-term mortgages in that community and they are going to have a full understanding of the operation, we are not convinced we can buy money cheaper than 3 percent. The next thing is the cost of operating the business, which must be added to the cost of money. We find it costs about 2 percent, that in relation to assets.

Mr. O'CONNELL. It costs about 2 percent for your organizations to do business?

Mr. BODFISH. That is right. That is quarters and equipment and supervision and personnel and all of the procedure, supplies, and the like.

Mr. O'CONNELL. That item is substantially higher than Mr. Rogers indicated was the cost of his organization to do business.

Mr. BODFISH. Well, Mr. Rogers, as I understood his statement, said it was a half of 1 percent for the conduct of the mortgage department. Now, that is only half of the business. That does not include the acquiring of this money. When he acquired his insurance money he paid commissions and had a whole phase of the organization which represented an addition to the one-half. As I understood; the one-half was the cost of operating the mortgage department.

Mr. O'CONNELL. He divided the interest rate that he had to get into three factors. One was the cost of doing business, one was risk, and the third was the cost of money, and the cost of doing business he said was one-half of 1 percent. I didn't know that it didn't include all of the cost of doing business.

Mr. BODFISH. Of course, our cost runs less in some of the larger institutions, but in the main we say roughly 2 percent and then we figure another half percent for risk. Now that is no accurate evaluation of the risk; that is what we put into reserves as required by statute, as required by conservative policy, to keep the saver's dollar safe from reasonably unforeseeable circumstances that might impair the integrity of those savings.

Mr. O'CONNELL. So, generally speaking, you feel that your organizations have to pay 3 percent or more for the money that they want to invest, 2 percent for the cost of doing business, and approximately one-half of 1 percent for risk, which would add up to 5½ percent average rate as a minimum.

Mr. BODFISH. That is right, 5 to 5½, larger institutions a little less and smaller organizations sometimes a little more, naturally.

Mr. O'CONNELL. I would like to discuss a moment more this 3 percent that it costs you to get money from the public. Do I understand that that is because your investment portfolio is a long-term investment and that the persons who put their money into your organization must not expect to get it out when they want to, as they can in a savings bank.

Mr. BODFISH. Well, I don't know that it can be drawn down to quite that position. We try to make a very careful and honest contract with them; in other words, our passbooks and certificates and bylaws provide that if cash is not on hand they must await the orderly liquidation or repayment of the securities. We don't make a contract, as does a commercial savings bank, that if we don't have enough cash on hand to meet all requirements we are going to turn the institution over to the public authorities for liquidation, which is in essence your banking contract. On the other hand, we do try to meet the withdrawal requests of all investors promptly with cash

on hand or the income from our monthly amortized mortgages, but it gets down to a rather simple proposition of what basis the people are willing to make their investments on, if we are getting a reasonable flow of funds.

I will say this: I think the factor of safety as developed by the insurance of bank deposits has been a real factor in our whole problem of money. You see, we guaranteed bank deposits in the Banking Act of 1933. As near as we can calculate over a billion dollars was drained out of our community institutions, largely due to the guaranty of bank deposits, so we had to come to the Congress and develop a somewhat similar guaranty fund for the savings and loan associations in order to turn the flow of capital. Now apparently there were questions of safety, of liquidity, involved there. The minute that was done the position has shifted and we have a very satisfactory flow into our institutions now.

Mr. O'CONNELL. Do you mean at the present time from the safety angle your institutions are in as good a position as your competitors for money, so to speak?

Mr. BODFISH. From the safety position we think so. We are not as liquid an institution, of course, as a commercial bank or mutual savings banks.

Mr. O'CONNELL. Could you tell me to what extent your savings and loan associations use the facilities of F. H. A. insurance?

Mr. BODFISH. Well, we are lending about a billion dollars a year, roughly speaking, now, and about 15 or 16 percent of our loans are F. H. A. loans. We use the F. H. A. when we have a high-percentage loan that is beyond the limits that we feel that we can go on our home-loan plans or where they want a term that is excessive. About 16 percent of our volume is insured F. H. A. business.

Mr. O'CONNELL. Would the balance of your loans, generally speaking, reflect a higher return to your organizations or a lower return?

Mr. BODFISH. They reflect a much higher net return but not particularly a higher cost to the borrower. Here is a business that operates on a 2-percent spread, as we say, in other words, if it costs 2 percent to operate the business, the difference between the cost of money and the sales prices is 2 percent. Half of 1 percent is 25 percent of the mark-up, if you put it in retail merchandising terms, and that half of 1 percent is the F. H. A. insurance premium. In other words, if we make a 5½-percent loan on our own plan, we are getting more than 25 percent more income than if we had made an insured plan where we are paying a half of 1 percent to the F. H. A. for carrying the risk.

Mr. O'CONNELL. Then your answer is that generally speaking your return from non-F. H. A. insured loans is higher than your return on F. H. A.

Mr. BODFISH. Our net return to the institution is higher and our cost to the borrower is the same. We have had no trouble meeting F. H. A. competition. As a matter of fact, in the beginning F. H. A. costs to the borrower ran anywhere from 6.3 to 6.7, and we just met that and we are meeting the present cost to the borrower.

Mr. O'CONNELL. I should like to return again to the cost of money. Do you happen to know what interest rates or dividends your association paid, say 15 years ago?

Mr. BODFISH. I could generalize that would in a way be fairly accurate. I would say they paid from, oh, 5 to 6 percent.

Mr. O'CONNELL. As opposed to about 3 now.

Mr. BODFISH. Yes. That 5 to 6 percent was not the rate received by all the savers. The old building and loan plan involved 6 percent, if you carried through the whole payment contract of 10 or 11 years, with some forfeiture of earnings if you withdrew prior to that period, so that didn't represent the exact cost of the money to the institution; it represented the dividend to the man that stayed and paid out his shares to the end. If he withdrew in 1 or 2 or 3 or 4 years, he received probably $2\frac{1}{2}$ or 3, $3\frac{1}{2}$ or 4 percent.

Mr. O'CONNELL. As I understand it, the safety factor on money invested in your institutions is substantially the same by virtue of present legislation as the safety factor of money put with, say, a commercial bank or savings bank. If that be so, I take it that the main reason that the cost of money to your organization is substantially higher than these other institutions must have largely to do with liquidity.

Mr. BODFISH. Yes. I would make only one qualification or statement; I would say an insured savings bank. I think our safety factor is greater than a noninsured savings bank.

The CHAIRMAN. I didn't get that answer.

Mr. BODFISH. He mentioned that our safety factor was as great as commercial banks or savings banks. I would say it is as great as an insured commercial bank or an insured savings bank.

Mr. O'CONNELL. Do you know whether mutual savings banks are insured?

Mr. BODFISH. Fifty-six of them out of some 600 are insured by the F. D. I. C., and in New York and Massachusetts they have State insurance plans that—well, let's say they probably, by an impartial observer, would not be regarded as strong insurance as the F. D. I. C. protection.

Mr. O'CONNELL. But in any event, to the extent that such banks are not insured, do you think the safety factor of your organization is higher?

Mr. BODFISH. That is right.

Mr. O'CONNELL. So your safety factor is as high or higher than your competitors' for money.

Mr. BODFISH. That is right.

Mr. O'CONNELL. So that leaves us with the question of liquidity to explain the difference in cost.

Mr. BODFISH. I think it is liquidity plus, being very candid, depression experience; that is, the savings banks are found exclusively in the Northeastern States, as a matter of fact 77 percent of their assets are in two States in the Northeast. We were scattered all over the country where we had the banking troubles and the real-estate deflation was very substantial. We were the people in the twenties who made the 75 and 80 percent loans and consequently we had that problem to work through after a real-estate deflation that averaged about 30 percent, as near as we can figure, of the residential properties. Those things are injurious to public confidence. They cause institutions to suspend payments temporarily, and the like. I think it is liquidity No. 1, and gradually working out of the depression experience.

Mr. O'CONNELL. But you compete for the money that is invested in your institutions with mutual savings banks in some areas, commercial banks, insurance companies, and other institutional lenders.

Mr. BODFISH. That is right.

Mr. O'CONNELL. I gather from what you say that, generally speaking, you pay and feel that you have to pay a higher return to your investors than these other people.

Mr. BODFISH. Yes.

Mr. O'CONNELL. And that is explained primarily on the basis of lack of liquidity of the investment that you make.

Mr. BODFISH. That is right.

Mr. O'CONNELL. That brings me to another question. What would you say as to the liquidity of F. H. A. insured mortgages?

Mr. BODFISH. Well, I don't believe there is any way to make a 20-year amortized or 25-year amortized mortgage liquid. I think you could give them some collateral value that will make them more useful to a financial institution to borrow upon.

Mr. O'CONNELL. Isn't it a fair statement that, generally speaking, F. H. A. mortgages have a very wide market and are, generally speaking, very liquid at the present time?

Mr. BODFISH. I think they have a wide market at the present time. I don't think that the present situation is any indication of the situation when liquidity is really needed; that is the thing that really counts. We never had a building and loan association go on withdrawal notice for 40 years, due to our monthly payments and the inflow of new investments. What the liquidity situation would be in a depression picture is something different. We think in the Home Loan Bank System that we give a certain amount of liquidity to other mortgages in that we have provided a vehicle whereby they can be borrowed upon substantially.

Mr. O'CONNELL. What rediscount privileges have your organizations?

Mr. BODFISH. There are about 4,000 of them that belong to the Federal Home Loan Bank System. They own about \$40,000,000 of stock in those 12 banks and they can borrow there—not rediscount—upon home mortgages that are in good standing. We feel in that connection that our liquidity picture as an institution has been substantially improved as contrasted to conditions that prevailed in the twenties.

I am not sure what the salability would be of F. H. A. mortgages in a depression picture. Certainly the currency issuing power has been put behind them by making them eligible for borrowing from the Federal reserve banks, which makes them somewhat liquid in the hands of commercial banking institutions.

Mr. O'CONNELL. When Mr. Rogers testified generally that while the factor of liquidity was not of great importance to his institution, he indicated that the F. H. A. mortgages were substantially more liquid than other mortgages and that they compared very favorably in liquidity with other types of investment. I am merely trying to see how valuable or how much this liquidity factor or lack of liquidity which you referred to is justified in requiring you to pay 3 percent or 3½ percent for your money. So as to make it perfectly clear what I was getting at, it seemed to me from testimony that had gone before

that if your portfolio consisted largely in F. H. A. insured mortgages, that liquidity would no longer be a factor, or lack of liquidity would no longer be a factor which would explain the cost of money to you.

Mr. BODFISH. Well, we have had a few institutions that have made a large amount of F. H. A. mortgages and I don't recall their experience has been one of a different public attitude on account of these investments. I think that an F. H. A. mortgage has a collateral value and has some marketability that an ordinary mortgage doesn't have beyond a question of a doubt. However, I still think our experience is ahead of us on the F. H. A. higher percentage of loans, rather than behind us.

Mr. O'CONNELL. So you haven't considered extending the use of F. H. A. insured mortgages as a vehicle by which your mortgage portfolio would be made more liquid and thus reduce the cost of money to you?

Mr. BODFISH. We think the liquidity thing has been taken care of largely, as far as it can be taken care of in a long-term mortgage institution, by the 12 Federal Home-Loan Banks which can lend on either F. H. A. mortgages or our regular mortgages. And I doubt if we can ever make an institution which exclusively invests in long-term mortgages a liquid institution. Probably I don't think we ought to.

Mr. O'CONNELL. I don't know that it is desirable, either. I was merely trying to evaluate the liquidity factor as explaining the term you are required to pay your investors.

Mr. BODFISH. In fact, we think it is best to have people understand there is a difference between a contractual demand deposit in a bank and a savings account or investment in a building and loan association and that they are entitled to that higher return only because they are committing themselves to receive their money back promptly, if it is available, but if not, to await the orderly repayment of the mortgages and the liquidation of the mortgage securities.

Mr. O'CONNELL. Do you think that factor explains the difference in cost of money to you as between your organizations and the other institutions?

Mr. BODFISH. That is true. Of course, I think there is another factor that shouldn't be passed by. That is that these institutions practically without exception are mutual cooperative enterprises. They are owned by the people who put their money in them. There is no proprietary stock in the sense of a group controlling the institutions, as there is in a commercial bank.

Mr. O'CONNELL. Of course, the same thing could be said for mutual savings banks and insurance companies.

Mr. BODFISH. Well, I would like to argue that with you sometime, because I think there is a great deal of difference between the mutual savings bank trustee system and our system, but the result is you have the directors and the citizens in a community as anxious to encourage thrift as to encourage home ownership and they take great pride in paying as liberal a dividend as they can to the hundred or one thousand or four thousand people that have their money in the institution.

Mr. O'CONNELL. Well, then, do I understand you to feel you don't think your institutions should be expected to compete for money with other institutional lenders?

Mr. BODFISH. I think they have to compete, which is probably a wholesome thing, but I don't think their whole point of view is to see

what is the lowest possible rate that they can pay for money. I think there is a cooperative aspect in there which while they follow the money market, they still don't say what is the lowest we can buy our money at, and what is the highest we can lend it at.

Mr. O'CONNELL. That brings you back to the question of what the purpose of the building and loan society is.

Mr. BODFISH. That is right.

Mr. O'CONNELL. That is whether it is to encourage thrift and get a high return for those who invest money in it, or whether it is to stimulate home ownership and make money available to home owners at the lowest possible cost. You are indicating now the emphasis is on the first.

Mr. BODFISH. I think the cooperative institution can have two objectives. I think they are to do economical home financing in a community and give a fair and a low rate to borrowers and at the same time operate the thing as economically as possible and make as generous a reward to the savers as possible. I think an institution can have two objectives.

Mr. O'CONNELL. I agree.

Mr. THORP. You have mentioned the word "community" a number of times. To what extent is it true that these organizations are essentially local from the point of view of gathering funds within a community and returning them to use within that community, rather than participating in a national capital market?

Mr. BODFISH. Dr. Thorp, I would say that the institutions are almost exclusively local as far as their gathering funds is concerned. You could say they are in the national market when they borrow from the Federal Home Loan Banks because the debentures are sold on the national market, but 95 percent of our money today comes from citizens right in that community and then is reloaned in the community.

Mr. THORP. What happens if there is not sufficient market in that community to put those funds to use?

Mr. BODFISH. Often the institutions will decline to receive or accept additional funds and quite often also, as happens in other financial institutions, when they have more money flowing toward them than they can use, that is when they usually make their mistakes. I think when there is more money available than they can prudently employ, there is always the temptation to put the money out. Our institutions are susceptible to that rather human error, as others.

Mr. THORP. Is there any machinery whereby they can bring funds from other localities into a locality where there is a particularly favorable market?

Mr. BODFISH. There are two pieces of machinery, one fairly universal and one fairly restricted. In some States it is possible for institutions to take shares and make deposits in other like institutions in other parts of the State; that is very common in New York State and Ohio, for example. The other piece of machinery which is nationwide but which is not extensively used is the Federal Home Loan Banks. They have the right to accept deposits from member institutions and that puts that money, that surplus money which is usually time money and gets time rate, into this System of 12 banks which has the statutory machinery under the Federal Home Loan Bank Board here to shift it to other parts of the country. I must say in

fairness that that facility has not been developed or used nearly so much as some of us anticipated it would at the time we had a little part in planning the legislation.

Mr. THORP. Essentially, though, that would summarize to say that these institutions are for redistributing funds within given communities, rather than among communities?

Mr. BODFISH. I think that is very true and accurate.

The CHAIRMAN. Is home ownership increasing or decreasing?

Mr. BODFISH. Well, I think it decreased during the depression period and the liquidation of the real-estate boom. I think that it will again increase, particularly in the smaller cities, as we resume building activities and as the construction industry expands.

The CHAIRMAN. That is now entering the field of prophecy. What is the actual condition at the present time?

Mr. BODFISH. Well, I don't think we have any figures. I think it is true we know statistically that home ownership has progressed in the last four or five decades. I think our 48 percent in '30, as I recall the figure, was the highest national figure we attained. I am not certain on that. I am speaking from memory.

The CHAIRMAN. That 48 percent included all mortgaged homes?

Mr. BODFISH. That is right.

The CHAIRMAN. As well as wholly old loans.

Mr. BODFISH. I don't know what has happened in the last 5 or 6 years. I imagine with the liquidation of the real estate boom of the twenties, which is what we have been engaged in partially in this country, that there has been some setback to home ownership. As a matter of fact, we got two to two and one-half billion dollars of institutionally owned residential real estate, homes for families. To that extent it is a set-back.

The CHAIRMAN. What is the interpretation of that figure? Do you base it upon the value of the foreclosed mortgage or the value of the property? You say there are $2\frac{1}{2}$ billion dollars.

Mr. BODFISH. Institutionally held real estate.

The CHAIRMAN. Does that $2\frac{1}{2}$ billion dollars represent the actual value of the residence property or the amount of the mortgages?

Mr. BODFISH. That is the book value which is the amount of the mortgage plus the taxes that have been paid, the carrying charges, foreclosure costs and the like. I think you will find that that—

The CHAIRMAN. How does it compare with the resale factor?

Mr. BODFISH. I think it is very slightly under the resale value. In other words, when you repossess a property, it usually means the taxes and carrying charges plus the mortgage indebtedness approach its market value.

The CHAIRMAN. In what manner do you handle these repossessed properties?

Mr. BODFISH. As a rule, recondition them, rent them temporarily, and in an orderly way put them on the market, resell them on home purchase contracts.

The CHAIRMAN. What proportion of them are now rented?

Mr. BODFISH. Practically all of them.

The CHAIRMAN. Practically all of this two and one-half billion of institution-owned homes are now being rented?

Mr. BODFISH. Senator, I should only speak for about a billion dollars of that. That is our portion in building-loan associations.

The CHAIRMAN. You experience?

Mr. BODFISH. Our experience is a much improved rental situation with regard to those properties and they are beginning to move off the books. If they continue at the present rate, I think in another 3 or 4 years we will be pretty well through with repossessed real estate.

The CHAIRMAN. The condition as you now describe it is that home ownership is declining; you hope it will increase. There is a smaller proportion of homes owned now than there was in 1930?

Mr. BODFISH. I would think so.

The CHAIRMAN. What indications do you see that there will be an increase of home ownership?

Mr. BODFISH. Well, last year we built about 265,000 new single-family homes. Most of them, with the exception of a few, have found purchasers and that means that there is a growing demand.

The CHAIRMAN. How many did you build?

Mr. BODFISH. In the country about 265,000 single-family homes.

The CHAIRMAN. How does that compare with the average construction in 1930 and prior thereto?

Mr. BODFISH. In 1930 it had fallen. For the period 1920 to 1930 as I recall, we built about 700,000 units annually of which about two-thirds were single-family units, the other third being multi-family, speaking in round figures, so it means we are about half of the average single-family home production of the twenties.

Mr. O'CONNELL. Less than half. You say 700,000, I believe. Oh, I see, two-thirds.

Mr. BODFISH. Two-thirds approximately were single-family units and the other third multi-family.

The CHAIRMAN. So we are now building annually only half as many single-family units as were being constructed in 1930 and prior thereto?

Mr. BODFISH. That is 1938. In 1939 I think it is going to increase somewhat.

The CHAIRMAN. That is, the number of units constructed last year was greater than the number the year before?

Mr. BODFISH. Substantially, about 40,000 greater.

The CHAIRMAN. Do you see indications that more will be constructed during the next year?

Mr. BODFISH. I think that there will be a gradual increase in the volume of construction. I would expect a substantial increase in 1939 over 1938. I think it is already indicated in the figures.

The CHAIRMAN. Well, do the building and loan associations study the problem of how the capacity of the people to build and own their own homes may be increased?

Mr. BODFISH. We try to. We try to study that every time we make a loan because unless we do lend to people who have the capacity to carry out their obligations, it is a bad transaction for them as well as for this community institution.

The CHAIRMAN. Naturally you would examine each risk to determine whether or not it was a good one.

Mr. BODFISH. That is right.

The CHAIRMAN. What I am getting at is whether or not you study what factors might promote good risks and make them more numerous.

Mr. BODFISH. Well, we try as a group to give considerable attention to the general economic situation, the trends of building, the trends

of incomes of families and that sort of thing so we can arrange terms intelligently. On the other hand I wouldn't want to imply there is much unanimity of thought because after all these local institutions are highly individualistic. You can't even get them to agree on closing hours let alone what is going to happen in their community next year.

The CHAIRMAN. Of course, I suppose it follows if home ownership is declining renting is increasing?

Mr. BODFISH. Well, I think there has been a doubling up of families and there has been some increase in renting during the depression, Senator. But I don't want to admit that the setback in home ownership has been anything other than a depression phenomenon in which people hesitated to make long commitments, in a period which we were liquidating the results of the real-estate boom of the twenties. I personally believe that the repercussions of the real-estate boom were even greater than the repercussions of the security speculation which we generally think of in connection with the late twenties. I feel that home ownership will move forward at the present time and its setback was essentially a temporary one. And while renting probably has gained, tenantry has gained in that period, I still think we should very reluctantly encourage rental housing or tenantry and confine that encouragement in our thinking and in our public policies to those units of population whose employment is so insecure or who must be so mobile as a family that they should not undertake to get a permanent stake in the land.

The CHAIRMAN. What can we do to encourage the construction and ownership of homes, family-sized homes?

Mr. BODFISH. Well, I think that there is a——

The CHAIRMAN (interposing). That, I assume, you would regard to be a desirable objective.

Mr. BODFISH. Beyond any question of doubt. I think we have a lot to do in the way of revising, for example, our local tax structure. The home owner is carrying practically the whole burden of expense of local government. I think the whole city-planning movement needs much greater emphasis. I think that there is much to be done in cities in the way of elimination of slums, demolition of insanitary and unsafe housing. I believe that we have got to start building communities rather than just houses, that is, many a home owner has had an unhappy experience because he was the only owner-occupier in an isolated subdivision somewhere. That is in distinct contrast to British practice where the larger building companies developed communities or estates as they call them. They build a whole community rather than isolated houses. I think we have given a great impetus to home ownership in the general sponsorship and adoption of the long-term amortized mortgage. I think that has been one of the real factors in getting the volume of home building we have at the present time. I think as costs fall, which they will, interest rates may fall a little more in some communities in response to the very intensive competitive situation. That will be helpful. It is possible that long terms may be extended some more, although some of us are very skeptical about a 25-year mortgage. We hesitate to encourage a family to commit itself to a debt that runs practically the whole productive life of the family. Traditionally our building and loan associations are all operated on a 12-year basis. We are moving now into 12 years on older properties, and on new properties 15 or 20 years.

I think that is an advance and the question is one of good judgment as to how far we should extend those loan terms in our efforts to reduce annual carrying charges.

The CHAIRMAN. To what extent are mortgage debts refinanced, and thereby continued over a long period?

Mr. BODFISH. There is a great deal of refinancing. I wouldn't say that it went to a majority of the mortgage debt, but I would say it closely approaches it. Of course, the refinancing doesn't always represent a continuation of the existing amount of the debt. Oftentimes it represents a shift, let us say, from a community institution with a 6- or 5½-percent rate to a bank mortgage or insurance company mortgage at a more favorable rate. I don't have figures on it.

The CHAIRMAN. Did I understand you to say most of the loans are refinanced?

Mr. BODFISH. I would say not most, I would say something approaching half of them are refinanced in the course of their existence.

The CHAIRMAN. What is the average term of an original mortgage?

Mr. BODFISH. In our institutions it has been twelve years. That average term is being lengthened. We are making some 15 and some 20-year mortgages now.

The CHAIRMAN. What is the effect of refinancing on the length of term?

Mr. BODFISH. That would frequently extend the length of the term and there would be a new obligation. The principal refinancing that takes place with our institutions, Mr. Chairman, has been refinancing by eastern insurance companies and lenders of trustee funds when the mortgage was seasoned down to what we used to call a no-risk mortgage, that is a 50-percent obligation. Oftentimes the borrower would refinance and get 4 or 4½ money in contrast to 5, 5½, and 6 or even the higher rates that used to prevail.

The CHAIRMAN. Would it be correct to say in almost half or a third of the cases, the mortgage is not really paid off but there is merely a change of mortgagees?

Mr. BODFISH. I think certainly in over a third of the cases there is a change of the mortgagees rather than the contract being carried right through to its end, even in our institutions.

The CHAIRMAN. Even in your institutions?

Mr. BODFISH. That is right. I think that is becoming less so, Mr. Chairman, as our rates have fallen and our rates have become more comparable with those of eastern insurance companies and the like.

Mr. O'CONNELL. Referring again to your discussion as to the possibilities of increasing construction, which of course is the thing the committee is interested in at this time, would it be fair to say most of the things you have indicated would be helpful in encouraging construction and involving a reduction in cost of one element or another that goes to make up home ownership?

Mr. BODFISH. Well, I think many of them would involve cost.

Mr. O'CONNELL. The cost of labor, cost of materials, the cost of taxes, the cost of money, or the cost of some of the many elements that go to make it up?

Mr. BODFISH. That is right.

Mr. O'CONNELL. You are in accord with the general view that a reduction in cost would in all probability result in the stimulation of

demand or would bring into the market persons not now in position to enter it as home owners or renters?

Mr. BODFISH. I think that is true. Of course an increase in rents would also bring them in without reduction of costs.

Mr. O'CONNELL. Increases in rents?

Mr. BODFISH. That is, there are just two sides to the dollar; you can either increase the income from real property or decrease its cost, and you accomplish the same thing but at a different price level.

Mr. O'CONNELL. You discussed the possibilities briefly of the reduction in interest costs and you indicated that you thought there was some possibility that because of the tremendous amount of available money seeking investment, there might be a further reduction in cost. I take it if there were such a further reduction, it would have to some extent the effect we have been discussing?

Mr. BODFISH. Yes; I think I would like to make one little addition to that; however, I think the financial group are the heroes, so far, in the reduction of costs because it is the one factor in the building cost picture which has taken a substantial and perfectly proper reduction. I have doubts whether it can or will go a great deal further.

Mr. O'CONNELL. From your standpoint it is fortunate we started with the heroes. The first element of cost we happened to consider would be finance costs; before we are through we will consider a number of other elements of cost. Anyway, we wanted to get in the record the fact that a reduction in finance cost, as well as a reduction in the other elements of cost, would have the same sort of effect, namely, stimulation of demand and to some extent expansion in housing.

Mr. BODFISH. I think that is essentially true.

Mr. O'CONNELL. As I understand, you stated that the average cost to home owners for mortgages carried by the various associations now runs about $5\frac{1}{2}$ percent.

Mr. BODFISH. About $5\frac{1}{2}$ percent.

Dr. LUBIN. That is the actual cost to them?

Mr. BODFISH. That is right.

Dr. LUBIN. Do any of your associations charge initiation fees?

Mr. BODFISH. The fees and fines and all that sort of thing of the traditional building and loan are in the main disappearing from the picture. As a rule, Dr. Lubin, there are initial fees. For example, if it is a construction loan, there would be a fee running half to one per cent to defray the frequent inspection. There are, of course, title charges which are not within the control of the lending institution, either to title companies, abstractors, or the attorneys.

Dr. LUBIN. The $5\frac{1}{2}$ percent includes the initiation fees and other things?

Mr. BODFISH. No; that is interest rate, and if there is anything additional, such charges are made at the time the loan is made.

Dr. LUBIN. Can you tell what the cost of money is to the members? Five and one-half is not the cost to the borrower. It is the interest rate you charge them.

Mr. BODFISH. It is the interest rate they are charged on the monthly balances. It is the true cost to the borrowers, if you add to that the legal cost—and, incidentally, there is a perfectly proper realm for some government leadership in the cost of putting mortgage business on the books.

Dr. LUBIN. Would it be fair to say the person whose mortgage is held by a building and loan association, on the average is paying 6½ percent for his money?

Mr. BODFISH. I think it would be a very unfair statement. When you distribute the initial costs over the period of the loan, I don't think they would exceed a quarter to a half percent at the top, distributed over the period of the loan.

Dr. LUBIN. The actual cost would be closer to 6 and 5½, then?

Mr. BODFISH. I wouldn't say it would be in excess of 5½. I have been in communities where there would be nothing in addition to 5½. Other communities where it is distributed over the loan, it might run as high as to increase the actual interest rate a half point.

Mr. ARNOLD. These are guesses on your part as to cost?

Mr. BODFISH. Mr. Arnold, you have to generalize when you are describing the rates and policies of four or five thousand community institutions, each of which has its rates determined by a local board of directors and the like.

Mr. ARNOLD. You never have made a study of how much their fees actually are and how much the additional cost actually is?

Mr. BODFISH. There have been studies——

Mr. ARNOLD. You don't have the figures with you?

Mr. BODFISH. I do not have the figures available for a large number of institutions.

Mr. ARNOLD. Therefore, these estimates you are now giving are just general guesses?

Mr. BODFISH. If I may say so, they are informed opinions.

Dr. LUBIN. You also mentioned some organizations were getting 6 and 6½. Can you tell us how many are getting 7?

Mr. BODFISH. I would say there are in terms of the volume of lending very few institutions getting 7.

Dr. LUBIN. There are some getting 7?

Mr. BODFISH. I think you can find them in some small areas, small communities, small institutions getting 7.

Dr. LUBIN. Can you tell us if any are getting 8?

Mr. BODFISH. I would say practically none. I don't see how they can lend money, if they do, when the F. H. A. rate to the borrowers is about 5¾ and everybody else is trying to lend money at 5½ and 6, I don't see how they can lend it at 8.

Dr. LUBIN. A lot had mortgages outstanding at a per cent or rate which was not cut and they are still outstanding?

Mr. BODFISH. I think there are some of them in that six billion dollars, but I doubt if there is a great deal, because an intelligent borrower can refinance his mortgage, that is one thing in building and loan associations, they can pay off their mortgage any time they want to without penalty.

Mr. ARNOLD. That, again, is a guess, isn't it?

Mr. BODFISH. No; it is a statement of fact which you cannot say applies exactly to 4,000 institutions.

Mr. ARNOLD. You have never actually made a statistical study of that question, have you?

Mr. BODFISH. I have not made a statistical study, I have spent ten years traveling and working among them and doing nothing else.

Mr. ARNOLD. That is a general impression you have from your observations?

Mr. BODFISH. General information, that is right.

Dr. LUBIN. Could you tell us how many of your organizations are now getting 9 percent on outstanding mortgages?

Mr. BODFISH. I don't think there are any myself. I don't see how they could lend a dollar.

Dr. LUBIN. You think there are some getting 8?

Mr. BODFISH. I think it is possible. I think there was a table put in the record the other day which I considered a very unfair statement, although it came from an official publication, in which a survey was made of lending rates and was not weighted in any way by the size of institution.¹ If you had a small institution that made one 7-percent mortgage and a million-dollar institution that made one at 5, half were lending at 7 percent and half lending at 5. That appeared in the Home Loan Bank Review. It was put in the record the other day. I don't see, Dr. Lubin, how an institution with all the commercial banks in the country lending money under the F. H. A. guarantee against loss by the Government—I don't see how a community institution, a building and loan, can be lending money in any volume or of any consequence in the national picture at rates of 7 or 8 percent. There is no question there were rates like that in the twenties, just the same as mortgages were made by bond and mortgage companies and all that sort of thing, at higher rates.

Dr. LUBIN. I think the thing that should be brought out definitely is that there is a distinction between a nominal rate and what people pay for their money. People believe that when they buy an automobile and they are paying 6 percent interest, they are paying 6 percent interest. If you check it, you will find they are not. If they are paying on a monthly installment basis, they are paying actually 12, if they have 12 payments a year. I wonder how significant 6 or 6½ percent is as a nominal rate, if you take in all of these other factors, plus the fact that there are still outstanding mortgages which were written when interest rates were relatively high, the rates on which haven't been lowered. After all, the problem of housing is not a problem of a few cities; it is a problem for the Nation as a whole. It is just as important that the man living in a small community where he has to pay 8 percent or 7 percent for his money have decent housing as it is in a large city.

Mr. BODFISH. Well, I feel this very distinctly, that the comparison as to mortgage rates should be accurate and honest. I think, frankly, that the legitimate private lender has been treated very unfairly in recent years by the colossal publicity of 5 percent F. H. A. money. The whole country was just deluged with 5 percent interest. The cost to the borrower in the first 2½ years of that operation was anywhere from 6.3 to 6.7, the Title I stuff was 9.7. Even now we still talk about 5-percent interest rates and an F. H. A. costs about 5%.

Mr. O'CONNELL. Why 5%?

Mr. BODFISH. Well, three-tenths of 1 percent appraisal paid by the borrower, legal costs, and the like, in addition to the 5 percent interest and the one-half percent premium.

Mr. O'CONNELL. The interest rate is 5.

Mr. BODFISH. Interest rate to the institution, and three-tenths of 1-percent appraisal, insurance and the legal costs. Our rates have all fallen; I think they have fallen as much in the small communities as

¹ Referring to "Exhibit No. 863," see appendix, p. 5485

they have fallen in the larger communities. Of course, with 10,000 community cooperative institutions I think probably we will find one or two that are charging 10 percent, operating on the old dividend-plan basis of paying 8- or 9-percent dividends on the borrower's share accumulations. I think in all these things, when you discuss the banks of the country or the building and loan associations, we have to intelligently generalize as to what the situation is. We are having no trouble meeting F. H. A. competition as to rate. We can't meet it as to loan percentages at times; we don't care to.

Dr. THORP. You spoke once before about the fact that banks had different rates according to the characteristics of the loans. Is there any generalization that you can make with regard to the cost of money to a borrower who is putting up a small house as against a borrower who is putting up a larger house? Assuming, let's say, a 50-percent loan on a \$5,000 house as against a 50-percent loan on a \$10,000 house, would the cost of money vary?

Mr. BODFISH. I think the cost of money doesn't vary so much with the size of the house as it does with the percentage of loan. Hundreds of our institutions have adopted the policy of making, let's say, a 4½- or 5-percent rate on 50-percent loan business, but when you move into 66% or on up to 75, it involves greater risks and will result in a half point or a point higher rate on those higher risks. I think the rate has turned on percentage of loan much more than it has on size of property. Of course, one of the problems with the very small property is that the title charges and that phase of the machinery are just as much as on a large one and proportionately it makes the loan more expensive to the smaller owner. I think that there are some areas where the smaller loans are more expensive because you go into districts where the risk is admittedly greater, where the banks or the F. H. A. won't go, and we go into some of those districts. I think you will find, as a rule, they will pay a 1 percent higher rate than they pay in a new district that is on the make rather than one that is either in decline or on the road to decline.

Dr. THORP. You wouldn't in general feel that the small house was a greater risk than the large one, would you?

Mr. BODFISH. I think the small house is—well, I think your risk there turns on what your equity protection is. I think that our experience bears out that in the terms of character—after all, it is the man who pays back the loan and not the house; the small fellow pays much better than the chap who buys a large house out on the country club frontage or who steps beyond his means a little bit.

The CHAIRMAN. I regret to interrupt this at the moment, but I think we are just about obliged to take a recess. Are there any members of the committee who desire to question Mr. Bodfish later? I want to ask Dr. Lubin if he has secured the material with respect to percentage of mortgage loans that we were discussing this morning.

Dr. LUBIN. Mr. Chairman, the urban and financial survey, which covered the years 1934-36, showed that in 202 cities, of all the owner occupied properties in those 202 cities, 56.6 percent were mortgaged.¹

The CHAIRMAN. Who made that survey?

Dr. LUBIN. That was made by the United States Government; Mr. Wickens was in charge of it.

The CHAIRMAN. What agency?

¹ See *supra*, p. 5091.

Dr. THORP. I think the Department of Commerce was responsible for the project.

The CHAIRMAN. When was it made?

Dr. LUBIN. It covered the years 1934-36.

Mr. BODFISH. Mr. Chairman, might I make one respectful request? In response to the letter from the representative of the committee, I prepared a statement answering as specifically as I could the questions that were set forth in the letter from Mr. Cheseldine.

The CHAIRMAN. What is that?

Mr. BODFISH. I received a letter from the committee raising a number of specific questions. I prepared a statement answering those questions. While we have covered some of them, we have not covered all of them. If not inappropriate, I should like to see that statement in the record. I submitted it to Mr. O'Connell the other day so he knows it doesn't have a great deal of extraneous or inappropriate matter in it.

Mr. O'CONNELL. I have no objection to its being included.

The CHAIRMAN. Without objection the statement may be entered in the record.

(The statement referred to was marked "Exhibit No. 865" and is included in the appendix on p. 5486.)

The CHAIRMAN. The committee will stand in recess until 2:30 this afternoon for a public hearing.

(Whereupon, at 12:45 p. m. the committee recessed until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:40 p. m. on the expiration of the recess, Representative Williams presiding.

Acting Chairman WILLIAMS. The committee will be in order. Mr. O'Connell, you may proceed.

Mr. O'CONNELL. The first witness this afternoon will be Mr. Henry Bruere.

Acting Chairman Williams. Do you solemnly swear the testimony you are about to give in the matter now pending will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BRUERE. I do.

TESTIMONY OF HENRY BRUERE, PRESIDENT, BOWERY SAVINGS BANK, NEW YORK, N. Y.

SAVINGS BANKS PARTICIPATION IN MORTGAGE FINANCING

Mr. O'CONNELL. Mr. Bruere, will you give your name and address to the reporter, please?

Mr. BRUERE. Henry Bruere.

Mr. O'CONNELL. Mr. Bruere, you are, as I understand it, the president of the Bowery Savings Bank, in New York City; is that correct?

Mr. BRUERE. Yes, sir.

Mr. O'CONNELL. We intend discussing with you to some extent this afternoon the question of the cost of finance as an important element in the cost of either home ownership, or rental of dwelling accommodations. Naturally, our discussion will probably cover some other topics too, but in general we are more interested in the finance cost

than anything else. First, from your general knowledge of the subject, would you be in accord with the view that has been previously expressed by witnesses before this committee, that the construction industry is not at the present time supplying, or able to supply, any substantial amount of adequate dwelling accommodations for families having an income of less than \$2,000 a year?

Mr. BRUERE. I think that is substantially true, yes; on the present rental basis.

Mr. O'CONNELL. In your opinion, would a substantial reduction in the cost of home ownership, or in rent, result in increased activity in housing for this group?

Mr. BRUERE. About that I am somewhat doubtful, because of the general economic situation. There are so many factors involved which effect the cost of housing and which effect the demand for it that it don't think a categorical answer is feasible to a question of that sort.

Mr. O'CONNELL. If we assume that there is a mass market, so to speak, of persons having an income of between, let us say, \$1,000 and \$2,000 a year, and if we also assume, as your answer to the first question indicated, that that market is not being met by the construction industry at present price levels, would it not follow that a substantial reduction in some or all of the elements that go to make up the cost of a house, would result in tapping that at present untapped market?

Mr. BRUERE. I think there are one or two assumptions in your question, one of which suggests itself to me at once. That is the assumption as to the availability of such a market, with persons of that level of income, whether a purchase of a house on the basis which we now expect people to demand, is a feasible thing for them, whether that does not represent very largely, a rental clientele, rather than an ownership clientele.

Mr. O'CONNELL. That interests me. Were you here this morning?

Mr. BRUERE. No, sir.

Mr. O'CONNELL. This morning we had quite some discussion with the previous witness on the question of rental housing, as opposed to home ownership, for this particular group of people, and we might take a moment to develop what your view is as to that. The opinion was expressed by some members of the committee, and others, that in that lower income group it might be that encouraging home ownership would in the long run be doing a disservice to the people in that lower income group.

The opinion expressed by the witness on the other hand was to the effect that he believed that an expansion of home ownership, even in that field, was desirable. Have you any views on that subject?

Mr. BRUERE. I think generally it is desirable to encourage home ownership where it doesn't place too large a burden on the person who undertakes to acquire the home, and it is for that reason in the economic levels benefited by it that I have been very much in favor of the arrangement recently made by the Government to insure small housing developments, thereby enabling lenders to lend a larger amount on the security with safety.

Mr. O'CONNELL. Of course, that doesn't cover the equity particularly, does it?

Mr. BRUERE. Yes; it enables him to escape certain charges, enables him to take a longer time to acquire full ownership and encourages him to make the beginning. It also gives, in our experience, which I must tell you at once is confined to one locality and I don't pretend to know the situation as a whole—it gives him a better product, and I think that we have felt our way in this present development very satisfactorily. The supplying of houses for persons of incomes of, let's say, two thousand—Mr. Lubin would know and I wouldn't know what proportion of the population, say of New York City, has an income, say a family income of \$2,000. It would be a very large proportion. Would you know, Mr. Lubin?

Dr. LUBIN. I would say that approximately half of the families come within that group.

Mr. BRUERE. They probably would, but we have a large proportion of them on relief. We are now making housing provision through the U. S. H. A. and the State Housing Authority, and enterprises such as the Bronx development of the Metropolitan Life Insurance Co.,¹ for low income groups, which I think, if one's opinion is worth anything, is a better arrangement in a city of that character for persons whose incomes are fifteen hundred to eighteen hundred dollars than the risk of home ownership, unless you can start with some very young person, shortly after marriage, where income has the prospect of rising. And it is for that type of person, where perhaps the wife is still employed and where there is some saving, that the present arrangements of the F. H. A., we think, from observation rather than from broad statistical study, are working out admirably.

This question has been discussed many times, it is much on our minds. I have prepared a little memorandum which doesn't quite answer what you say, but has to do with the question as to why both equity and mortgage money do not seem to flow into the building field as rapidly as we should like to have it in an ideal economy. I don't want to bore you with these documents, but I can give you a copy.

Mr. O'CONNELL. Let's see if we can't develop them a little more piecemeal and if when we get through we haven't developed them all, we will be glad to have you supplement them at that point.

You made reference to F. H. A. as an organization which was meeting an income group which was probably more susceptible to rental development than anything else, and you also mentioned the Metropolitan Life Insurance Co. My understanding is that the income group to be met by F. H. A. activities generally is below the income group to which we have been referring.

Mr. BRUERE. The U. S. H. A.

Mr. O'CONNELL. The U. S. H. A. I understand in New York the maximum number they will reach in terms of income is \$1,300 a year and in most sections of the country even below a thousand.

Mr. BRUERE. That is a question I noticed the mayor raised at the opening of the Red Hook houses yesterday or the day before.

Mr. O'CONNELL. On the other hand, I believe Mr. Ecker is going to testify later as to the groups met by the Metropolitan housing development. I understand that income group in all probability will be above \$2,000, so what I am interested in mainly is the group between those two extremes, that is between \$1,000 and \$1,300, and \$2,000.

¹ See *infra*, p. 5134 et seq.

Mr. BRUERE. If I were a laborer working for \$1,400 or \$1,500 a year, or a chauffeur, with a wife and two children, how can I acquire a house?

Mr. O'CONNELL. You can't live in a U. S. H. A. housing project.

Mr. BRUERE. I can't live in a U. S. H. A. project and I don't want to live in the Bronx or some other place where rent might run down to eighteen or fifteen dollars a room. I think I shall have to be thrifty for a while and give up my motor car if I have one.

Mr. O'CONNELL. You would have to be thrifty to own a home.

Mr. BRUERE. I would expect my wife to work and I could not afford too many children. It is a pretty hard job for anybody in that income group to acquire a house in New York, although I was looking over recent loans we have made on F. H. A. insured loans, and many of those were mortgages running from three to five thousand on six to seven thousand dollar houses.

Mr. O'CONNELL. Boiling this down, would you say generally it is your view from your general observation that for persons in that so-called middle income group there is at least a substantial market for rental houses as distinguished from home ownership? Without attempting to say we should or should not encourage home ownership, it seems to me there are two problems involved. One is the social desirability of home ownership as against the economic feasibility of it for persons in this low-income group, and the witness this morning stressed his view that home ownership in any income group was a desirable thing, and I just wanted you to develop what you thought.

Mr. BRUERE. I concur in that, and I think Mr. Bodfish in thinking of the whole country would have a better view than I who see it living in New York City where to obtain land cheap enough to provide a home you incur transportation inconvenience or expense which might offset the advantage of the home. But certainly we are all concerned to the greatest extent possible to contribute to the development of individual home ownership.

Mr. O'CONNELL. I believe there is no dispute about that.

Previous witnesses before this committee have stressed the importance of what are generally referred to as annual costs, as distinguished from original cost. Could you agree in surveying the possibilities of decreasing costs in order to meet the purses of those in the middle income groups, it is important to consider annual costs as well as original capital costs?

Mr. BRUERE. It means carrying charges.

Mr. O'CONNELL. It includes carrying charges, repairs, taxes. That is terribly important, is it not?

Mr. BRUERE. Yes; there is no question about that.

Mr. O'CONNELL. Of course, that is where the finance costs come in.

Mr. BRUERE. That is where the difficulties arise, because persons who have the fixed charges may be confronted with emergencies which cause them embarrassment. It is an ordinary human proposition. We have all experienced it.

Mr. O'CONNELL. Could you tell us something about the extent to which the Bowery Savings Bank participates in housing finance? First you make direct mortgage loans for new residential construction?

Mr. BRUERE. Yes; we do to a limited extent make construction loans.

Mr. O'CONNELL. Primarily you go into the field of the completed dwelling.

Mr. BRUERE. We buy the mortgage on the completed construction.

Mr. O'CONNELL. Do you ordinarily deal directly with the mortgagor or do you deal through a broker or middle man?

Mr. BRUERE. Wherever we can we deal with the individual mortgagor, but presently of course the principal activity of our lending is in the field of Federal Housing Administration insured mortgages which are arranged through builders. The individual mortgage is made, of course, ultimately with the owner, the individual mortgagor. We might provide for the construction loans on a certain number of houses, but when they are finished we lend the money to John Jones under the provisions of the Federal Housing Administration.

Mr. O'CONNELL. In that transaction is the arrangement usually direct as between you and the mortgagor?

Mr. BRUERE. Yes; we follow it through. In other cases we buy from concerns that have done the financing.

Mr. O'CONNELL. Would you have any information as to your current operations as to how your new mortgages would divide up as between new residential construction and financing existing structure?

Mr. BRUERE. Ninety-nine and a half percent new.

Mr. O'CONNELL. Ninety-nine and a half percent of the mortgages you are placing involve new construction?

Mr. BRUERE. Yes.

Mr. O'CONNELL. Can you tell me what percentage of the mortgages you are now placing involves F. H. A. insurance?

Mr. BRUERE. Pretty nearly all of them.

Mr. O'CONNELL. Pretty nearly all?

Mr. BRUERE. Yes.

Mr. O'CONNELL. You also buy mortgages for investment, of course, through the middleman.

Mr. BRUERE. Well, we buy some, but we have a definite limitation when we do. We have in the last year and a half, I think, bought about 3 millions of F. H. A. insured mortgages, and we have committed about 3 millions more in process, and we would like to have our present program of investment about \$10,000,000. That will all be virtually new construction.

Mr. O'CONNELL. Are those mortgages that you are placing 80 percent mortgages?

Mr. BRUERE. Originally; they have gone up now, some of them, of course, to higher percentages. They run around 80 percent because they are selected mortgages.

Mr. O'CONNELL. Outside of F. H. A. insured mortgages is there a statutory maximum?

Mr. BRUERE. Sixty-six and two-thirds percent on the appraised value.

Mr. O'CONNELL. There is exemption for F. H. A. insured mortgages?

Mr. BRUERE. The F. H. A. is exempted; anything F. H. A. will insure is eligible for investment in savings bank funds, but we of course try, just so as to keep our hand in, and to make a contribution of judgment, to look at these loans with some discrimination, so there is some selection. We don't buy indiscriminately just because they are insured because we don't think that that is a proper attitude to take toward an enterprise.

Mr. O'CONNELL. There has been considerable comment, lately, in many circles resulting from the recent policy of your bank to make F. H. A. insured mortgage loans at an interest rate of 4½ percent, as I understand it; the maximum F. H. A. rate is 5. Is that correct?

Mr. BRUERE. The maximum permissible; yes.

Mr. O'CONNELL. Would you care to indicate generally to the committee what motivated your company in reducing the F. H. A. in reducing the effective rate on insured mortgages?

Mr. BRUERE. Well, there is a lot of money to be invested in mortgages, and New York, despite all its experience, is mortgage minded. The savings banks require mortgages to take care, even if they didn't increase their deposits, of the increments in deposits, because depositors allow the interest to remain. We haven't many alternatives any longer for investment. We buy long-term Government bonds maturing in 1960 or 1965, yielding about 2.30%. Most of the railroads which were heretofore eligible for investment by savings banks are no longer eligible, because, as you know, we are restricted by specific provisions of the statute regarding the type of investment that we make of our funds. We may still invest in mortgages. The principal activity of mortgages, in the mortgage field in New York City, has been in the development of apartment houses, six-story elevator apartment houses, and in the F. H. A. small-house field. We have felt that the investment for our purposes in F. H. A. insured mortgages in small houses was preferable. Therefore, we sought them. We found that the demand was so great that we didn't get them, and we felt that with the insurance, that with proper selection, proper supervision of construction, we could advisedly take them at a 4½ percent rate, cutting a half of 1 percent, because we do our own servicing, and with volume we thought we could perhaps make up a part of that loss through economies in servicing. We didn't intend to go too far into that field, as I said, limiting it perhaps to eight or ten millions of dollars, and therefore we offered to take them at that rate and currently we are taking them at the rate of about one hundred and fifty or one hundred and seventy-five thousand dollars a week, but we will come to the end of our program, perhaps in a year or so.

Mr. O'CONNELL. Does that current rate at which you are taking mortgages represent an increase over the amount that you were getting before you reduced?

Mr. BRUERE. Oh, yes. It brought us loans. It helped us considerably, I should say.

Mr. O'CONNELL. Do you think that represented to some extent an expansion in construction activities or do you think it represented merely getting business that other institutions would otherwise have gotten?

Mr. BRUERE. I think we came a little late in the field to stimulate expansion. I think we just took loans that others no longer wished to take at that rate.

Of course all of these generalizations I am making are based on impression and hearsay, very largely, and observations. They may not be statistically sound.

I don't want in the presence of Dr. Lubin to make any positive statements which can't be statistically verified. My impression is that we did not much stimulate, although some builders resumed

because they thought there was a chance to widen the margin a little bit.

Mr. O'CONNELL. Would you think a general decrease would have that stimulating effect?

Mr. BRUERE. I think, as you know, you have a definite limitation there. I believe there is a definite limit on the number of persons that can be sold houses at the present time. We have a lot of persons who are uncertain as to their income or haven't any income and we have a lot of development that has been going on. The market tends to stiffen up, it has decidedly stiffened in the last few months. I couldn't say honestly that I believe by slashing the interest rate you would widen very much the demand, because the interest rate is a relatively unimportant factor in the long-term cost of housing.

Mr. O'CONNELL. It is quite an important factor in the monthly cost.

Mr. BRUERE. Yes; but you have maintenance costs and so forth. That isn't the determining factor to a purchaser, as to whether it is 26 years at 4 percent. He doesn't sit down and figure it out to a nicety. His problem is whether he has \$500, or \$600, or \$700 to lay down for his first payment. Is he reasonably sure of his job, and can he pass all of the tests that are very properly applied to his dependability as a purchaser by the F. H. A.? Their judgment would be very much better than mine, but I wouldn't offhand think that you would widely increase the demand by reducing your interest rates within reasonable limits. You can't revise it too far, because then money won't be supplied.

Mr. O'CONNELL. Of course, I agree there probably isn't one determining factor, but it seems to me all the factors which go to make up the determination of whether or not a man builds, and whether somebody else builds an apartment house for him to rent, all those factors involve costs. In other words, all of the deterrents I have heard of are things that represent a cost element, labor cost, material cost, finance cost, and while admittedly reduction in interest cost of one-half or three-quarters of any particular percentage would make only a comparatively small reduction, let me say, in the monthly cost, if we were to outline the field of the various elements of cost and were to be able to effectuate a reduction in some of the major elements that enter into the total cost, I gather, I should think that the stimulating effect would be really substantial.

Mr. BRUERE. Well, that is a matter of judgment. On a \$5,000 house, 1 percent is \$50 a year interest.

Mr. O'CONNELL. That wouldn't be \$5 a month.

Mr. BRUERE. That is \$12.50 a quarter. One dollar and twenty-five cents a month may make some difference, the \$1.25 looking ahead 5 or 6 years doesn't look as big as the amounts you have to put down for your 10 percent payment.

Mr. O'CONNELL. I think he has to get over the hurdle of the 20 percent.

Mr. BRUERE. I think that is so. After a while, he gets along and he feels perhaps he could save a little money by reducing the principal and securing a reduction in the interest rate. We have found that to be true with persons who were able to make a reduction in the principal of the mortgage, for which they desired an offset reduction in interest rate. They said, "I'll give up the \$500 or \$1,000 if I can save half or

three-quarters of 1 percent, for instance." He is well on his way. He is the owner of the house and begins to see how the monthly expenses run. Perhaps he has a prudent and thrifty wife who thinks \$1.25 is a lot of money and he tries to get it adjusted. At the beginning he is putting his hands in all his pockets and she is looking in her purse and savings-bank account as to where the \$700 down payment is going to come from. That is the deterrent. If you could do something about that, or the question which we have all discussed that you probably all know infinitely more about than I do, namely how can you reduce the total cost of construction?

Mr. O'CONNELL. That brings me to a general question that I think perhaps you are thinking about. In the light of your experience, what would you say as to the possibility for stimulating residential construction through removing of the deterrents of whatever sort seem to you to be of the most importance? You mentioned construction costs and other things.

Mr. BRUERE. Yes; that is it. We haven't found the answer yet to mass production of houses, even if we did believe we had a mass market. To a certain extent the builder of groups of houses has cut costs by wholesale purchasing of materials, but we have this problem of the seasonal demand for labor and the necessity of paying higher wages which are demanded because of the short duration of employment. Nobody has yet worked out, due very largely to climatic conditions, the means of reducing the costs of dwellings by mass production. A lot of people have been trying it, as you know. It may eventually come.

Another trouble, I think, which exists there is that houses are immobile. You can say, "We can achieve mass production," but the customer may not like the location you choose. You have to go through the process of individual selection, and we know also there is a great deal of individual taste. We have got past that in modern industry. People like to buy cars like someone else's car. They prefer to live in houses unlike anyone else's house. For that reason we now arrange so this house has a pink bathtub and the next a purple one and the next a white one, and so on. You can't very well get complete standardization because you haven't complete standardization of taste.

Mr. O'CONNELL. Isn't it more available as a possibility when you think of it in terms of large-scale manufacture?

Mr. BRUERE. Yes; I think it is one of the major questions. It isn't a problem which can be handled entirely by the institutional lenders of funds. Through joint studies by the construction industry and if we found some way of getting cooperation from the labor groups, if there were a feasible way—I don't pretend to know one—and the Government, we might be able to say that under reasonable conditions houses could be supplied in 500 or 1,000 lots at 5, 10, or 15 percent cheaper than they would be built in lots of 20 or 30 or 15.

Mr. O'CONNELL. I was thinking again in terms of your suggestion that reasonably small reduction in interest rates would not mean a very great reduction in annual cost. There was testimony presented here last week to the effect that a 20-percent reduction in labor costs on a typical one-family residence would have amounted to about 5 percent reduction only in the cost of home ownership in terms of

annual cost. So there, again, it is an item which taken by itself does not indicate any answer.

Mr. BRUERE. I have a lot of theories on the subject which are in a state of development and probably a lot of them unsound. I think the major question is a question of the organization of communities in which we live. We have created a community and then we have abandoned it. There is no system of development. We allow people to take one area and develop it without relation to another. We have to provide new facilities, sewers, and streets, lighting, and whatnot, without realizing the ultimate cost which will come and reflect itself in taxes and perhaps assessments. We are just beginning. Certainly it is true in New York. We are just beginning to get the idea of planning the town. We also are still in the stage of developing adequate transportation facilities. We build an area where transportation facilities aren't adequate because we seek cheaper land. Then we build transportation facilities and we find the cost increases there by taxation. All of those things affect home building in a complicated community such as any one of our American cities is. I think we are beginning to see now that we have to plan areas and by setting up certain standards, I think the most desirable of which are those which have been erected by the Federal Housing Administration, the Government has made a very significant contribution within that field. If we all put our heads together, perhaps we can reduce costs. I think it is going to be a question of slow development. Certainly it is nothing we can do if we should say, "For improvement"; you probably wouldn't think it an improvement for us to suggest, "we will lend money for 26 years at a rate which is considerably below what is the going rate to stimulate savings." We would find that it would have very little effect on the ultimate demand for houses, because of these other conditions to which I have referred. But I don't want to say nothing has been done. I think we are making slow progress. I add and repeat that the most significant process, I think, has been in the last few years when we have begun to erect the standards which are the basis of joint judgment such as those which were set up by the supervision of the Federal Housing Administration, to which we will look for good merchandise. If we can get the public to believe that we are building good merchandise, it is worth while to save for this type of house, the house insured by F. H. A., the house that you are not going to find you have to replace the material in in a very short time, then gradually we will get a growing demand for that type of thing for which people will save and make plans, and then builders probably can go into the field on a larger scale and the city will say, "This will be a development exclusively for the small-home owner and the arrangements for financing will be made in advance of the actual construction of the total area."

Mr. O'CONNELL. A great deal of what you have said would seem to indicate there was great hope for the large-scale development.

Mr. BRUERE. Yes; I think that is so. To a certain extent, the English housing has gone along that line. They have taken certain localities and they have ribbons of houses that run through zones where they are all standardized and where arrangements have been made somewhat in advance of the acquisition of the land, and it is known progressively building will be put up on them. Only recently has there been a tendency to do that, as far as I know, in New York.

(Dr. Lubin assumed the chair.)

Mr. O'CONNELL. Have you any other things?

Mr. BRUERE. I have discussed a number of points that I want to perhaps emphasize on this question of finance. We have been talking about the small house. The cost of interest in the multiple dwelling, for example—we have taken here a total of 196 buildings of which 188 were mortgaged. These are all located in New York, they are all new buildings all in one area of New York, six-story elevator apartments. The total mortgages represented \$28,000,000, the average rent per room at the opening of the houses was \$20.39. The gross annual rent was \$7,300,000. The annual mortgage interest was \$1,347,000 and it represents exactly 18½ percent of the gross income. Now this percentage we find almost uniform in different types of houses, multiple dwellings. The cost of financing—

Mr. O'CONNELL (interposing). That is the cost of interest on a large scale?

Mr. BRUERE. Yes; in relation to the total rental income, and therefore you can see that while it is important, it isn't the predominant feature by any means.

Mr. O'CONNELL. Do you know of any other single items that are more important?

Mr. BRUERE. No; except the service aspects of it and, of course, operations. If you reduce, say you reduce the interest one-sixth or one-seventh, it would have a relatively small effect on the total percentage of the income which was allocated to financing.

Mr. O'CONNELL. My point is I think that same thing can be said about almost any item you take. It just happens in the thing we started with, finance, was one of the elements in the cost of home ownership. I am sure as we continue that every other element of the cost of home ownership, all of which combined makes the cost of ownership too high, is subject to the same thing.

Mr. BRUERE. We have certainly brought down the cost of ownership and will bring it down. We have brought it down on an average by insurance. You have estimated your second-mortgage charges, you have removed your uncertainty as to the ultimate security, and that has affected the average rate considerably. Now, the next thing is to proceed toward whatever standardization we can achieve. I might be impudent enough to say that if I were on this committee I would find out what such organizations such as the Bureau of Standards and the construction groups that are technically equipped could suggest by way of a proposal for discussion on this question of costs. I think it is worthy of a considerable amount of study and I think you would probably find that both the local housing authorities and the Federal Housing Administration are accumulating some very important data. I think you will find everywhere to the extent of their capacity lending institutions which are using other people's money will be glad to cooperate because it is obviously of very great importance to us. We would like to have inaugurated a continuous process of study of these questions.

Our ideal country would be to have people well employed, saving their money, buying homes, living decently with all the amenities that make life worth while. Otherwise, we don't gain anything by what we are seeking to accomplish socially. I would like to see the Bureau of Standards or a sort of Brookings Institution set

up by the Government to look into that question. I wouldn't want to suggest anything implying any point of view, but you will find, I think, no major devil in this picture. There isn't any hocus-pocus that is being worked but we are dealing with an industry which grew up. You and I both know how the private house was originally built, how it was mostly built by the carpenter, or the little builder building two or three houses a year. We just don't know how to provide individual houses on a large scale. As I say, the attitude of the individual buyer enters in. We all lament the awful rows of houses that look alike where people may be uncertain of the doorway they are entering on a dark night, except that the lock is different. So we seek for variety. I think it can be done in time. I assure you that to the extent that the relatively small amount of money the Bowery Savings Bank has at its disposal, it will cooperate in every way to find the answer.

Mr. O'CONNELL. Referring again, just to be perfectly clear and so that I understand you, have you any thought as to whether taking the cost of finance as one of the major elements in the cost of home ownership—whether there is any reasonable possibility in view of the substantial sums of money that are available awaiting investment of a substantial reduction in that cost?

Mr. BRUERE. May I give you an answer which is some figures? A little midnight oil has been burned here. I thought you were going to ask more questions I couldn't answer, so I had the answers all written out nicely.

Mr. O'CONNELL. And now I haven't asked the questions.

Mr. BRUERE. I haven't found that. I think you have a lot of them. I have done the best I could. Here on the question of mortgage charges, which I imagine is what you are interested in, Mr. O'Connell, these are charges which are made against borrowers in making ordinary mortgage loans, say, to any one of us here. We come in and we say we live out some place on Long Island. For the purpose of comparison, we have taken all in one locality. Here is a house for \$3,000, say you would buy a house for \$3,000. Your mortgage tax would be \$15. It would cost you \$72 to have your title insured.

Mr. O'CONNELL. Would I have to have my title insured?

Mr. BRUERE. Yes; we would want it insured.

Mr. O'CONNELL. You would want it insured, all right.

Mr. BRUERE. I suppose there is a way of getting around that, but we have to take the title risk; the F. H. A. wants it insured.

Mr. O'CONNELL. Does F. H. A. require it?

Mr. BRUERE. I don't know that they require it. It is better for us to have it so, because we have to deliver the title in case of foreclosure. They want us to insure it if we have the insurance.

Mr. O'CONNELL. That is a reasonable requirement.

Mr. BRUERE. Yes; in case the mortgage is foreclosed. The attorney's fee is \$15; recording fee, that is a statutory charge of \$8.25 based upon the number of words in the document. There we have on a \$3,000 mortgage charges of \$120 which represents 4 percent precisely to get the mortgage started.

Mr. O'CONNELL. In terms of the borrower, I take it the man who is trying to buy the house would have that 4 percent added to the amount of his down payment.

Mr. BRUERE. Yes. We don't absorb any of those particular charges. Sometimes the builder will. On \$6,000, the cost is \$161, and the rate was then 2.68. So on the average house between \$3,000 and \$6,000 in our locality, the rate would be something around 3½ to 4 percent; on \$10,000, of course, it comes down lower. It is slightly less, of course, if uninsured, because we do not have the inspection charge of the F. H. A. That is all. Those are not staggering charges for a new enterprise and we have tried to get them down as low as we can for the purpose of inviting the use of our lending facilities by contractors and others who can direct borrowers to us.

Mr. O'CONNELL. Those are costs over and above the interest rate borne by the purchaser?

Mr. BRUERE. Yes. They are beyond our control. They are revenues for the Government as well as the State; the mortgage tax and recording tax, which is, of course, a municipal charge; the lawyer's fee for drawing papers and supervising it and seeing that it is all in order; and the title insurance is at our option, of course.

Mr. O'CONNELL. Those items, particularly when spread out over the term of the mortgage, represent very great increase.

Mr. BRUERE. No, they are not deterrents especially. It is lack of funds and the inability to reduce costs by mass production. We just haven't found the answer yet.

Mr. O'CONNELL. But it would be so, would it not, that an equivalent reduction in the finance costs, whether it be by reduction in the interest rate or lengthening, let us say, of the period of amortization, would have exactly the same effect as comparable reduction in capital cost?

Mr. BRUERE. I think so, yes; yes, of course. May I say this, that I have been giving the impression perhaps in our discussion that there hasn't been a good deal of building in the New York area. As a matter of fact, there has been a considerable amount of it. We have in New York, among the savings banks, the trust companies, some of the life-insurance companies, an organization which statistically studies what goes on and they inform me that in the past 3 years the additional facilities have provided accommodations for 60,000 people; but that, of course, is very much lower than was the case in other years, but still it is substantial.

Mr. O'CONNELL. I think it is an improvement over recent years.

Mr. BRUERE. It is an improvement over recent years. Take in the five boroughs 1933 to 1939, inclusive, there has been a marked growth in the amount of square feet of construction. In 1933 the total residential was 6½ million; in 1934 8 million; in 1935, 1¼ million; in 1936 29 millions; in 1937 it dropped to 28 million; in 1938 36 million again, and in 1939, the first 5 months, 21 millions.

In 1928 those figures by comparison look very small because then (1928) there were 150,000,000 square feet added. That is now, of course, an unbelievable situation; mythological.

Mr. O'CONNELL. I would like to ask one question referring to interest rates. Are substantially all of the mortgages you are taking now with F. H. A. insurance at 4¼-percent interest?

Mr. BRUERE. We think costs have gone up a little too high and there has been too much competition on apartment houses. We don't want to take them at the present level—as a matter of fact, we would like to get mortgages where a fellow has 40 or 50 percent in

his property and those we would take without insurance. But, as a matter of fact, the bulk of the business we are now doing is in purchase of F. H. A. mortgages.

Mr. O'CONNELL. On a 4½-percent basis?

Mr. BRUERE. Yes, 4½, and we have taken when sometimes it is necessary to do so, a little less, say 4 percent, where mortgages are bought from other originators. We pay a little premium on them and a service charge, so that it nets us perhaps 3.55 percent or 3.60 percent.

Mr. O'CONNELL. And the exceptions, the cases you refer to, where a man might have 40- or 50-percent equity, would be exceptions which would result in a lower rate?

Mr. BRUERE. Where he has 40% equity we would loan him without insurance F. H. A. 4½ I think is what we have been getting for that type of loan.

Mr. O'CONNELL. So that 4½ of course would represent 4½ to the borrower, whereas 4¼ on F. H. A. would be——

Mr. BRUERE (interposing). Your question was that the cost to the borrower is 4½ percent, as against the cost to the borrower at 4¼, and the difference is you might say the valuation that we place upon the insurance. It has value, naturally.

Mr. O'CONNELL. In other words, generally speaking, it is the position of your company that selected mortgages with F. H. A. insurance are good investments to you, with 4¼-percent return?

Mr. BRUERE. At the present time, up to a certain amount of money, if we have about eight or nine millions to invest on that basis. Municipal and utility bonds of comparable quality are longer in term and higher in price.

Mr. O'CONNELL. When you say utility bonds, municipal bonds, are high, you mean the yield to you is low?

Mr. BRUERE. Yes; lower yield than the long term, and a low interest rate.

Mr. O'CONNELL. Would you say that the current loans you are making on F. H. A. insured mortgages would yield you a better return than other types of securities in your portfolio?

Mr. BRUERE. Yes; mortgages always yield a little bit above, of course, the average bond rate, 1 percent at least.

Mr. O'CONNELL. Why should an F. H. A. mortgage have a 1 percent higher yield than a utility bond?

Mr. BRUERE. Why should it? In the first place, the idea is that you have a certain lack of marketability, which is perhaps No. 1. You have an investment which is subject to deterioration, you have certain risks, which are minimized, but still exist, with respect to foreclosure, and delivery of this particular security in good condition to the F. H. A. for recoupment.

Mr. O'CONNELL. Now let us take the first one——

Mr. BRUERE (interposing). Then you have a narrower demand for it, perhaps.

Mr. O'CONNELL. That goes back to your question of marketability. I was under the impression that F. H. A. insured mortgages were quite liquid, quite marketable; that there was a wide market for them.

Mr. BRUERE. They are a made market. Mr. Jones, of the Reconstruction Finance Corporation, made them liquid, in a sense, in the beginning, by offering to buy them when we were all very timid about

them at the beginning, you know. They have since become more liquid, but, of course, they are not as liquid in the sense that a listed and prime security is by any means.

Mr. O'CONNELL. You mean they are not traded on the exchange?

Mr. BRUERE. No; and they are not known. People are still sensitive about buying what they can see.

Mr. O'CONNELL. As the value of the F. H. A. insurance becomes better known, don't you think that would be reflected in lower interest?

Mr. BRUERE. There again your guess, of course, would be as good as mine. There are a lot of conditions which may affect the interest rate, but undoubtedly the insurance is a value-giving quality, and it has to be reckoned as such, and I regard the insurance perhaps as only a part of the value contributed by the F. H. A., assuming that its work is well done. I think it has been increasingly well done in our observation. The inspection and selection of the risk is a very important factor, we find.

I don't want to give the impression that there are not limits. I think we must be aware that you can't escape saturating the economy with any particular kind of new development merely because the Government puts a velvet dress on it, so to speak. You have to have an economy able to absorb the commodity itself. The Government might conceivably build motorcars so that you could sell them for \$275, but still there would be a limit to what people would be able to buy. The same thing is true of housing.

Mr. O'CONNELL. We will agree, will we not, that from the point of view of your company up to a limited sum, you concede that the F. H. A. insurance is of such value behind mortgages that it makes F. H. A. insured mortgages a good investment at $4\frac{1}{4}$ percent?

Mr. BRUERE. For the time being, in a limited amount, and I say in good locations that we know all about, and with good risks, we call them a good pattern rating which the F. H. A. gives, that at a $4\frac{1}{4}$ -percent rate they would seem satisfactory to us. Now, it may not seem satisfactory to others. We certainly felt so, otherwise we would not have taken them.

Mr. O'CONNELL. I have no further questions.

Acting Chairman LUBIN. Mr. Bruere, I was very much interested in the statement you made about the interest rate that was necessary to stimulate savings. Would the experience of your bank lead you to believe that if you paid higher rates on deposit now you would have more deposits?

Mr. BRUERE. I would answer this way. We have found it desirable, for reasons which I think are clear to anyone, to limit the amount of savings that we accept in any one particular time because we are virtually operating our bank on a basis which enables anyone, to secure interest after 3 months of deposit, and at a 2 percent rate, which is now paid, it is a very attractive opportunity for anyone to invest short-term money. We have, therefore, restricted our deposits to what we regard as a reasonable savings amount, \$500 a quarter. We already do not accept at that rate the amount that is offered to us. We would make that situation worse if we were in position to pay a higher rate. I don't think that we would increase the amount of true savings. I think the people who actually save because they say, "Well, I will put this money away for some purpose next year or next summer," may have the idea of saving virtually now all they can, and

it is only those who have idle sums of larger funds that use these facilities with the restrictions placed upon them. You would have therefore, more money immediately available for this year, but it is subject to a more rapid withdrawal.

Acting Chairman LUBIN. Is it fair to conclude from what you have said, that, by and large, the mass of the savings in this country is in a sense automatic and leads to the extent that a rise in the interest rate—and by a rise I mean within reason, not a doubling overnight—does not necessarily increase by any appreciable amount the amount that is saved?

Mr. BRUERE. I think that you will find that a modest rise in the interest rate does not increase rapidly the amount of true savings actually set aside in the form with which I am familiar. Of course, that is a question that ought to be borne out by statistics rather than impression.

Acting Chairman LUBIN. Do you find any trend at the present time toward an increase in investment in real estate for investment purposes as such? Are people buying houses or apartments for rental in any increase in quantity as compared with last year?

Mr. BRUERE. Not in our locality.

May I say something about the other question to which I made an answer somewhat incomplete. The stimulation to savings in response to increased rate of return must be governed and affected by the duration of the investment. I am familiar with the viewpoint of the building and loan associations. I think if we assume that those investments are long-term investments, that you probably, by increasing the rate, do secure from other forms of saving larger available funds. If we, for example, would do as the British savings banks do, the trustee savings banks, have a differential rate on long-term savings, I think we would, by increasing the rate, increase the amount available for long-term investment.

Acting Chairman LUBIN. That doesn't mean that you have increased the gross amount of savings as such.

Mr. BRUERE. I would not think so. I would like to hear what you have to say about that because you know a great deal more than I do about it.

Acting Chairman LUBIN. At least such evidences as are available show that during this period of at least 5 years of falling interest rate, savings have not decreased in amount; in other words, despite the fact that interest rates are going down, those people who do save apparently are not cutting down on the amount of savings.

Mr. BRUERE. I think there is a certain group of prudent people who habitually save and therefore go on doing it, hoping that the interest rate may improve, but at all events are mostly concerned with the availability of their principal funds. That is what we find. Having by the law of averages been able to develop virtually demand deposit banks on long-time investments because of the continual replenishment of funds shows that there is a large proportion at least of the people who habitually save if they are employed. It is a habit which has been engendered. It is not much stimulated over short periods by adjustments in the interest rate.

Mr. O'CONNELL. There is one other question I would like to ask you. Does your bank have a substantial amount of what is referred to as unwillingly held property, property that is foreclosed?

Mr. BRUERE. We hold about 5 percent of our total assets on foreclosed property.

Mr. O'CONNELL. Have you any feeling as to whether the amount of unwillingly held property held by institutional lenders is a substantial deterrent to expansion in new construction, and what should be done about liquidating those holdings, what is being done?

Mr. BRUERE. Yes. Our view is that it naturally has a material effect upon the point of view of investors if they know that all over the market there is a lot of property held temporarily in unwilling hands, institutional investors. For that reason, we have adopted a policy of classifying those properties. Those that we think, in all the laws of reasonable probability, may appreciate in value again with increased demand, or which are currently income-producing, we are attempting to keep off the market, unless we get too tempting an offer, which doesn't happen too often, and those that are deteriorating or old we are reducing so as to bring to the market level. All of us are doing that, and therefore the number of buyers available is strictly limited. But it is also true that where there is a large amount of foreclosed real estate held and on the market as against the areas where not so much is held, the volume of trading isn't apparently greatly affected. If a man could find a proposition on which he could make or hopes to make a profit through increment or make a reasonable and substantial return on his investment, he will buy it irrespective of whether or not in some other locality in which he is not interested there is cheap property available upon which he can't make a good return. I think while it is important, it isn't a controlling factor. The dominating thing is that people are not in the market for this type of investment. They have seen deterioration in value; they know that taxes are high; the situation hasn't cleared up enough to make them enthusiastic buyers. The rich don't want to tie up their funds in nonliquid investments. They are troubled by the inheritance tax. During the last few years, with readjustment in values, we have been experiencing social changes which have affected the point of view toward these investments. For a while there were going to be a lot of fellows come over from England and buy, but they didn't show up. There are a few persons of courage who go along and buy, who have a sense of values, who are a little shrewder than the rest of us and make a little money on it, but the general optimism and enthusiasm that you can buy today and sell tomorrow and go to Europe on the proceeds no longer exist.

Acting Chairman LUBIN. Mr. Bruere, you raised a very significant point in that last sentence which I think is something that should be clarified, namely, you give the impression, which is the impression that I have had, that most people who invest in real estate don't invest, by and large, for investment purposes; they invest for trading purposes on the theory that they are going to buy today and sell tomorrow.

Mr. BRUERE. I think that was true in the heyday, but I don't think it is so true now, because there are relatively few investors to whom the speculative builder can sell. The speculative builder more or less gave up because he didn't see an investor's market for his product. In the old days I think a large proportion of people built to sell.

Acting Chairman LUBIN. That raises another question as to whether or not there is need in the United States for some sort of institution of an investment character where people can invest in real estate as an investment. Of course you do that through buying mortgages, but apparently there is no machinery whereby people either through corporations or other places go out and actually build on the theory that this is an investment they are going to maintain indefinitely.

Mr. BRUERE. Of course there has been such development. A number of organizations and corporations have gone into the building business with the idea of permanent ownership. Several occur to me at once in New York City.

Acting Chairman LUBIN. There is one large one right outside of Washington.

(Representative Williams assumed the chair.)

Mr. BRUERE. Yes; one that was recently developed, and the Queensboro Corporation on Long Island, early developed with the idea of permanent ownership. There are other groups and certain estates that continue to build to rehabilitate and to own, and we all are familiar with certain individual owners who have had great confidence in their properties. A number are still existing in New York which everyone knows about, but at the moment they are not developing in large numbers, for the same reason that other types of investment haven't developed, because of the uncertainty of the market, but I think that will come. We are very hopeful that it will come increasingly as we get these various conditions of transportation, city planning, and what-not worked out.

Mr. O'CONNELL. Your bank is not legally empowered to invest in—

Mr. BRUERE (interposing). No; we can't buy equities.

Mr. O'CONNELL. Have you any opinion as to the advisability of institutions such as yours, or rather large institutional holders of savings, on that point?

Mr. BRUERE. I think our problem is, we can't get too far afield. We have got to stay somewhat in the realm of liquidity. We have now about 30 percent of our assets invested in United States Government securities with the idea that those are liquid, and we would have to regard the fact that our deposits are on demand. A life-insurance company has a longer viewpoint, perhaps, and therefore it would seem to me it would be more prudent for life-insurance companies to make the experiment which they are now doing, one or two of them, but eventually if we get stabilized it might be a very good thing to do for a certain portion of our funds. I think the Birmingham Municipal Savings Bank, in England, has invested in houses of that type where they thought the community was more stable than some of ours, but for the present we don't think it is desirable.

Would you permit me to leave this document with you for whatever merit it may have? It covers, I think, perhaps more explicitly those points which you have raised.

I would like to call attention to one item which perhaps has already come to your notice, which I think is a very significant piece of work. It was a study made by the group of experts for the Federal Housing Administration in cooperation with some life-insurance companies, three of them, and three savings banks in New York, of which the

Bowery was not one, of the potential demand for new housing of a multiple-dwelling type in New York City. I have never seen an attempt to look at the whole picture of the community so well developed as this particular report, and if your experts in this inquiry have not seen it, I would like to call it to your attention. It is called "The Housing Demand of Workers in Manhattan, an Income Analysis of the Workers in Manhattan to Determine Rent Levels for New Apartments in the Lower East Side and Other New York Areas," by Homer Hoyt and L. Durward Badgley.

Mr. O'CONNELL. Thank you, I will get a copy of that and make it available to the committee.

Acting Chairman WILLIAMS. Thank you, Mr. Bruere.

(The witness, Mr. Bruere, was excused.)

Mr. O'CONNELL. I should like to call Mr. Ecker. Mr. Frederic Ecker.

Acting Chairman WILLIAMS. Do you solemnly swear the testimony you are about to give in the matter now pending will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. ECKER. I do.

TESTIMONY OF F. W. ECKER, VICE PRESIDENT, METROPOLITAN LIFE INSURANCE CO., NEW YORK, N. Y.

INSURANCE COMPANY INVESTMENTS IN HOUSING

Mr. O'CONNELL. Mr. Ecker, will you please give your name and address to the reporter?

Mr. ECKER. My name is F. W. Ecker, vice president of the Metropolitan Life Insurance Co., address, 1 Madison Avenue, New York City.

Mr. O'CONNELL. I should like to explain to the committee that Mr. Ecker has been called at this time to pursue a somewhat different topic than has been pursued by the three previous witnesses. Several times throughout the hearing reference has been made to the experience of the Metropolitan Life Insurance Co. in constructing wholly owned large-scale rental housing projects. We thought it advisable to ask Mr. Ecker to come here and answer a few questions that would give the committee a general view of the experience of that company in the large-scale rental housing field.

Mr. Ecker, I should like to ask you a few questions along this line. I take it that the Metropolitan Life Insurance Co. is authorized to engage in direct ownership of real estate.

Mr. ECKER. Yes, sir.

Mr. O'CONNELL. Is that by virtue of a recent law?

Mr. ECKER. There are two situations. One amendment to the law was passed in 1922, at which time we were permitted for a limited period of time to invest in low-cost housing enterprises which would rent at \$9 per month per room, as a demonstration to see whether that type of dwelling could be built by private capital, and then more recently in April of last year, the law was amended again, which permitted us for a period of 5 years to invest up to 10 percent of our assets in the development of housing for the middle- and lower-income groups.

Mr. O'CONNELL. Referring particularly to the early legislation, I take it that under that early legislation you constructed a large-scale housing project on Long Island?

Mr. ECKER. Yes, we did.

Mr. O'CONNELL. When was that project built?

Mr. ECKER. That project was undertaken in 1922 and completed in 1924.

Mr. O'CONNELL. And as I understand it, that was built under special legislation.

Mr. ECKER. Yes; that was at a period when there was a considerable shortage in suitable housing facilities for the lower-income groups. In New York State in 1919 a committee known as the Lockwood committee of the New York State Legislature made an investigation of this subject and reported that for some period of time no dwelling had been built to be rented for less than \$20 per month per room and most of them had been built to rent at \$25 and more per month per room, and their counsel at that time came to our company, or at least in 1922 came to our company, and asked us if we would undertake the development of such a project which, as I said, was to be rented at \$9 per month per room as a demonstration that this could be done by private capital. We thereupon, after further study of the situation, did go into it and we selected a site or at least several sites on Long Island within about 15 or 20 minutes of mid-Manhattan and built 54 individual apartment houses. These were all 5-story buildings with apartments ranging from 2 to 6 rooms to an apartment.

Mr. O'CONNELL. You referred to the rent of \$9 a room. Was that the maximum fixed in the legislature authorizing you to undertake the development?

Mr. ECKER. Yes, it was, but I should add that at the same time a New York City statute was passed which for a limited period of time gave us tax exemption as far as the building was concerned. The land has been taxable throughout. The building was tax-exempt for a period of 10 years up until 1932 and full taxes have been assessed since that time.

Mr. O'CONNELL. In the construction of this project how did the company undertake that? Was that constructed by a contract with a general contractor?

Mr. ECKER. In that particular case we took bids on a unit basis and the low bid was Henry C. Irons & Co. and they received the contract.

Mr. O'CONNELL. Can you give us any figures showing the total cost of the project and the cost per dwelling unit and room?

Mr. ECKER. Yes, sir. The total cost was \$7,478,000 in round figures. This figures out a cost per apartment of about \$3,519, and a cost per room of \$787.

Mr. O'CONNELL. Apparently each apartment averaged about five rooms, then.

Mr. ECKER. Yes, the apartments ranged from two to six, as I say, with most of them four and five.

Mr. O'CONNELL. And the rent averages not more than \$9 per room, is that correct?

Mr. ECKER. That is correct.

Mr. O'CONNELL. Does the Metropolitan furnish any service in addition to shelter for this rent?

Mr. ECKER. Yes, the customary service of heat and janitor service and so forth.

Mr. O'CONNELL. Have you a rent schedule of the present rents?

Mr. ECKER. Yes, the rent schedule at present is somewhat below \$9 a room on the average. The present average is \$8.37, I believe it figures out. The schedule is as follows: Two-room apartments, \$18.12; three-room apartments, \$27.09; three-room and dinette, \$34.13; four-room and dinette, \$37.62; four-room converted apartments, \$43.25; five-room apartments, \$41.63; five-room and dinette, \$43; and six-room apartments, \$49.52 a month.

Mr. O'CONNELL. Taking the year 1938, have you any figures you could give us as to the potential rent that might have been lost through vacancies?

Mr. ECKER. Yes, in 1938 about 5.12 percent of the potential income was in vacancies.

Mr. O'CONNELL. Was a substantial amount, or any amount, lost through noncollection of rent?

Mr. ECKER. In 1938 about 0.42 percent.

Mr. O'CONNELL. Have you any figures showing the average percentage of loss through vacancies over the entire period of operations?

Mr. ECKER. Yes, in vacancies over the entire period it was a little over 8 percent—8.12. Of course, that was a poor period in there. For the first 6 years I would say it was practically full almost all the time, and then the period of the depression it went off. Subsequently it has increased again, and at the present time it runs around 2 percent, I think. It is better than it was last year.

Dr. LUBIN. Mr. Ecker, do you know what your real-estate department figures should be the maximum vacancy allowable in determining the income of property for mortgage purposes?

Mr. ECKER. We customarily use, I would say, 10 percent, but on this type of undertaking we expect the vacancies will not be as large as that.

Mr. O'CONNELL. In other words, in effect, you are customarily below what you expect?

Mr. ECKER. Yes, sir; that is right, sir. Wait a minute. I would not say at the peak, I would say at the average.

Dr. LUBIN. When I say at the peak I mean at the peak of vacancies, the percentage of vacancies was less than what you figure as the average on other properties.

Mr. ECKER. No; I say over the average of the years we have had this investment it has averaged less than 10 percent, it has averaged 8 percent.

Mr. O'CONNELL. Have you any figures showing operating expenses for the year 1938?

Mr. ECKER. Yes. The operating expenses in '38 totaled \$566,700.

Mr. O'CONNELL. Can you break them down roughly?

Mr. ECKER. A brief break-down would indicate water, \$21,346; fuel, \$74,450; repairs and maintenance, \$153,789; other operating expenses, \$167,240; a total of \$416,826, to which should be added real-estate taxes of \$149,874.

Mr. O'CONNELL. Do those expenses include setting up reserves for replacement?

Mr. ECKER. No, sir; they do not.

Mr. O'CONNELL. Just ordinary repairs?

Mr. ECKER. That is right.

Mr. O'CONNELL. Have you any figures that would indicate how much you have charged off for depreciation over a period of years, or in '38?

Mr. ECKER. Our procedure has been that this undertaking was built, you will recall, back in 1922, and the purpose of the demonstration was to see if a 6-percent return could be obtained on capital in an undertaking of this type, so that it was set up on the basis that all income in excess of 6 percent would be used to write down the investment on the books of the company.

Now, in that manner, about \$1,750,000 was written off. In 1936, things had not been going too well, consequently we thought it would be conservative to make an additional write-down, so about \$200,000 was written off in addition at that time—I should say about \$300,000 at that time, so the total decrease over the period has been \$2,050,000.

Mr. O'CONNELL. Two million, fifty thousand has been written off for depreciation since 1934?

Mr. ECKER. Yes, sir.

Mr. O'CONNELL. Have you any figures showing the assessed valuation of the property in 1938?

Mr. ECKER. Yes; the assessed value is just under \$5,000,000.

Mr. O'CONNELL. Just under \$5,000,000?

Mr. ECKER. Yes; \$4,980,000.

Mr. O'CONNELL. And the total construction \$7,000,000?

Mr. ECKER. Yes.

Mr. O'CONNELL. Have you a figure indicating how much was paid for the lands?

Mr. ECKER. About \$470,000 is my recollection, a little under half a million dollars, was paid for the land. I am mistaken. It is \$567,000 that was paid for the land, a little over half a million.

Mr. O'CONNELL. So that the land plus building would be in the neighborhood of about eight million?

Mr. ECKER. No, sir; the figure of \$7,477,000 included the land.

Mr. O'CONNELL. I beg your pardon. Have you any figures showing what your profits were in 1938 and how they were figured?

Mr. ECKER. I would not term this figure as profit.

Mr. O'CONNELL. I see.

Mr. ECKER. Before depreciation and amortization, the 1938 net income was \$346,000, and that was 6.33 percent on the then book value, the depreciated book value.

Mr. O'CONNELL. And on your method of handling this, I take it the 6 percent would have been considered as return on capital and the 0.33 of 1 percent would be depreciation?

Mr. ECKER. That is right.

Mr. O'CONNELL. Have you any information as to the income level of the tenants who occupy that property now?

Mr. ECKER. Well, we would say that they probably ranged from \$1,500 up to about \$3,000. I haven't any definite figures on that, but I will put it this way, that in general we do not rent to anybody with an income in excess of \$60 a week, and on the other side of the picture, we will not rent to them an apartment the monthly rent of which is more than their income for 1 week, in other words, four times, approximately speaking. That, in general, is the basis.

Mr. O'CONNELL. And your policy is not to rent to people who make more than \$60 a week?

Mr. ECKER. That is our general policy. I wouldn't say there isn't an exception here and there, but that is our general policy; yes.

Mr. O'CONNELL. And you haven't any definite or detailed figures indicating how the income level would be broken down?

Mr. ECKER. No. I haven't seen any figures on that. We have some figures that were made of a study some little time ago, giving the occupations of the various individuals that were there, and you can see from their occupations that they were in the middle- and lower-income groups, so to speak. If you are interested in that, I will be glad to present it.

Mr. O'CONNELL. I don't know that it is necessary, but, in general, the minimum would be \$1,500?

Mr. ECKER. Well, possibly some under that. I would say there might be some; yes, under that in this undertaking, because you see a two-room apartment, \$18 a month, they might well be under \$1,500; yes.

Mr. O'CONNELL. Yes; that could be done as low as \$1,000, couldn't it?

Mr. ECKER. Very readily. Of course, the bulk of these apartments are 3, 4, and 5 rooms. I don't want to mislead you.

Mr. O'CONNELL. As a matter of fact, I think the figures probably indicate the average would be nearer five.

Mr. ECKER. Of course on these room figures you have to know whether you are dealing with half rooms or quarter rooms, and so forth.

I take it that this committee is entirely familiar with that method of figuring apartment rentals in the low-cost housing developments.

Mr. O'CONNELL. I for one am not entirely familiar with it.

Mr. ECKER. It is merely this, that in most of these situations that are spoken of, as renting for so much a room, there is added cost, maybe a half-room cost for a bathroom, in a three-room apartment and under, for instance, and over that at times there is an extra charge of a half room for a dinette, or something of that sort. So that a three-room apartment, or a four-room apartment would not rent necessarily for four times the rental figures for one room. It might be four and a half times. In a good many situations, a rule of thumb might be that you could add one-seventh. Most of the type of apartments are three or four-room, and when you add a half room to each one of those, you will have one additional room for every seven rooms. You count the bathrooms as a half room in figuring the rent.

Of course, it is obvious that when you build a two-room apartment, for instance, and supply a bath, the cost of that apartment is going to be more per room than to build a five-room apartment and supply a bath. This is a method of compensating for that. I believe it is a quite general practice.

Mr. O'CONNELL. I think that is sufficient explanation. Can you tell me generally if your experience with this particular investment from the time of its inception in 1922 has been a fortunate experience for the company?

Mr. ECKER. We consider it entirely satisfactory; yes, sir.

Mr. O'CONNELL. Has the average return to the capital invested exceeded the 6 percent that you hoped for?

Mr. ECKER. It was originally set up at 6 percent, with the expectation that there would be 2 to 4 additional for amortization. Since so

large a portion of the particular life of this property has been in a very depressed period, we have not realized as much as anticipated on that basis. But at the same time we have a substantial lowering in interest rates, and I would consider the return entirely satisfactory from a financial standpoint.

Mr. O'CONNELL. Going back to what you indicated earlier about the \$9 per room maximum, is that a maximum in the legislation which will continue to regulate the rates that you charge for rooms?

Mr. ECKER. Oh, no; that was in section 20-A of the law, and was for a limited period of time. We could no longer build under that particular authorization. We now are undertaking a newer development in the Bronx under section 20-B, which is a different section of the law.

Mr. O'CONNELL. Are you right now limited by law to \$9 a room on the Long Island property?

Mr. ECKER. I think that is a legal question that I would rather not answer. The law specifically gives us the right to sell, for example, and somebody else would not be bound by it. Whether we are bound by it after our tax exemption has expired or not, I am not clear, but we have no intention at the present time of disposing of it, and we are able to undertake this, or at least we are able to operate at \$9 or less, and that is the purpose for which this undertaking was built and we are continuing to do it.

Mr. O'CONNELL. I wanted to know if you happened to know what the legal situation was. There is in New York legislation which provides for limited dividend housing corporations or projects under the supervision of the State housing authority, and in return for tax-exempt privilege, I believe they are limited in the return they can make, which in turn, of course, would operate as an upper limit on the rents they can charge, but you are not entirely clear whether in this particular project you are so limited legally. Your tax exemption was a limited privilege, only for a period of years.

Mr. ECKER. That was a limited period of time. That tax exemption has expired. If I were to guess, I should say we could raise the rents.

Mr. O'CONNELL. I would like to ask you a few questions about the more recent project in the Bronx. That project as I understood you to say was undertaken pursuant to much more recent legislation than the legislation referred to in 1922.

Mr. ECKER. Yes. We had been giving consideration to this type of undertaking for some little time and we felt that there was a need in this lower- and middle-income group which we could fulfill in this manner, and thereby provide a sound investment.

Mr. O'CONNELL. Referring again to the legislation, as I understand it, the legislation authorized life-insurance companies to invest up to 10 percent of their assets in housing projects, is that the substance of it?

Mr. ECKER. Yes; life-insurance companies licensed to do business in New York State, is my recollection. I would like to refresh my memory on just how that law reads. I have a copy of it here some place. (The witness failed to locate a copy of the law.)

Mr. O'CONNELL. I don't think it is important. In any event, the Metropolitan is authorized to invest up to 10 percent of its assets in a development of that kind.

Mr. ECKER. That is correct.

Mr. O'CONNELL. And that is a limited period of 5 years?

Mr. ECKER. That is limited to 1943.

Mr. O'CONNELL. And pursuant to that legislation you determined to build that housing development in the Bronx. Can you tell me what determined the location of the project in general?

Mr. ECKER. We made a considerable study of all possible locations in that section. In the first place, we picked generally New York because of an existing condition there, and also because I presume it was a relatively new undertaking and we could thereby give it closer supervision.

I recall that we studied particularly some 25 different sites and found that this particular site was for our purposes the most desirable. We chose a site formerly owned by the Catholic Protectory, property on Fordham Road, adjoining the One Hundred and Seventy-seventh Street Station of the Interborough Rapid Transit. It was particularly desirable because in one ownership was 125 acres of this land, and, in addition to that, because this ownership had been in one place for a great many years, the titles were relatively clear, no rights of streets had been given to the city, and, oh, various considerations of that sort.

Mr. O'CONNELL. Is that the approximate area of your development, 125 acres?

Mr. ECKER. It is somewhat larger than that—129½ acres. In order to round out the undertaking we had to buy a few acres more around the edges.

Mr. O'CONNELL. How many families do you estimate will be ultimately housed in this development?

Mr. ECKER. About twelve thousand two hundred and sixty-odd families.

Mr. O'CONNELL. Could you tell me what the estimated total cost of the project is, and how much of the total cost would be attributable to land?

Mr. ECKER. There is some \$4,705,000 in land. We estimate the cost in the neighborhood of 45 million. We anticipate and hope that it will be at a lower figure than this.

Mr. O'CONNELL. Is that being constructed by a contractor or on the same basis as the other project?

Mr. ECKER. No; in this instance the builder is the firm Starrett Bros. & Eken who are undertaking this work at a percentage fee, but a fixed upset limit to that fee, plus cost of construction. In undertaking this work, we conceived that the best manner in which to go about it was to put together what we termed a "board of design." We went out to obtain those individuals whom we felt were available to us who had the best knowledge of this type of undertaking. This board of design was headed by Mr. Richmond H. Shreve, architect, of the firm of Shreve, Lamb & Harmon. In addition to the architect, the builder, Mr. Andrew J. Eken, president of Starrett Bros. & Eken, is on the board.

Then a city planner, Mr. Gilmore D. Clark, city planning and landscape engineer, whom you probably know, is a third member of the board. Irwin Clavan is associate architect. Both Mr. Clavan and Mr. Shreve had had considerable experience in the Williamsburg Housing Development, as had also Mr. Eken.

Our own representative who came with our company to undertake this work is Mr. George Gove. Mr. Gove has been the executive sec-

retary of the New York State Board of Housing for a number of years. The last member of the board was Mr. Henry C. Meyer, Jr., of the firm Meyer, Strong & Jones, as engineer.

So we endeavored to put together there a group of men, each one of them outstanding in his particular field and could give us the most efficient assistance in this undertaking.

Mr. O'CONNELL. What exactly was the function of the board?

Mr. ECKER. The board of design planned this whole undertaking and supervised its construction, of course under the direction and reporting to our company officials. It is unfortunate that the Chairman of our Board, my father, is not here at this time, because this particular field of housing and all its ramifications has been a particular study of his for a number of years.

Mr. O'CONNELL. Mr. Eken who is a member of the board is also in direct charge, or his company is in direct charge of the construction; is that true?

Mr. ECKER. That is correct.

Mr. O'CONNELL. Is it an advisory board? I don't quite understand the function of it yet.

Mr. ECKER. The board of design has planned and is supervising the construction of this undertaking. They study the thousands of different questions that come up in connection with the most efficient planning and operation of an undertaking of this type.

Mr. O'CONNELL. This board, then, is made up of persons—were they employed by the company?

Mr. ECKER. They are employed on a fee basis; yes, sir.

Mr. O'CONNELL. Is Mr. Shreve a member of the firm of architects that did the actual designing?

Mr. ECKER. Under Mr. Shreve and his associate, Mr. Clavan, our own architectural force was set up to do this particular piece of work.

Mr. O'CONNELL. Could you tell me how far along the construction is at the present time—how long it will take to complete it?

Mr. ECKER. Most of the purchasing has been done. The actual construction is in the neighborhood of 20 percent completed. We anticipate by January of next year the first quadrant will be open for rental.

Mr. O'CONNELL. It will be opened progressively; some units following others?

Mr. ECKER. Yes, it is designed to be built over a period of 3 years.

Mr. O'CONNELL. In view of the large amount of building and labor involved in such a project, was any attempt made to work out any special arrangement with labor?

Mr. ECKER. We gave considerable thought to this subject at the time this work was started, but we did not find that it was feasible of accomplishment, so that the building is being built with all union labor at union wage scale. We haven't had any difficulties of that sort and we don't anticipate any.

Mr. O'CONNELL. Did you make any attempts, or how do you purchase, or how had the materials been purchased which are undoubtedly being used in large quantities? Are they being purchased from manufacturers or the middlemen in New York, or do you happen to know?

Mr. ECKER. The purchases are made in practically all instances under competitive bidding. There may be a few small items where that doesn't apply.

Mr. O'CONNELL. I was merely trying to bring out for my own information whether or not there were any substantial economies in construction cost through labor savings or material savings in terms of the bargaining power of your agency as against the small-scale individual home.

Mr. ECKER. Now of course in buying in bulk, in large quantities, there is some saving in cost, because the manufacturer naturally is willing to sharpen his pencil more, he can give employment to his people, he can cover his overhead for a longer period of time, and particularly in a period such as we have been going through, undoubtedly they have sharpened their pencils on that. But where the bulk of the saving is involved in an undertaking of this sort, it seems to us, is not so much in that field as it is in what we have been able to accomplish through this board of design in the planning of this undertaking, and all of the advantages of having a large-scale operation of this sort. You see, in the first place, there is the advantage of having control of a neighborhood, and so by this means we can maintain the character of that neighborhood. It is not subject to deterioration because of outside influences. Secondly, there are the subsidiary advantages of an undertaking of this size in that we have stores and theaters and garages and other business enterprises of that sort located right on the property. Thereby, any income from these subsidiary sources accrues to us or accrues to this particular undertaking and thereby permits you to reduce the rents accordingly. In addition, I spoke of the advantage of bringing together a group of men of this character, each one outstanding in his particular field, and with special experience along this line. In the planning which we attribute, of course, to this board of design, they have—well, one indication, for example, of planning is that in this development the buildings only occupy 27.4 percent of the total land area, whereas in the ordinary gridiron layout it is at least 32 percent. The streets only occupy 21.2 percent, whereas ordinarily up to 47. I have got those figures reversed that I just read to you.

The landscape and recreation in this undertaking, 51.4 percent, whereas ordinarily, only 20.

In its design I think it would be well that we produce some of these pictures that we have right here which will give you a concept of this thing. It is pretty hard to visualize in talking only statistics, but you will see, for example, this is the layout-out here, with two streets going through this way and the buildings so located that they get the maximum amount of light and air and never any closer than 60 feet between any building, or at least any windows of any building, and the bulk of them a great deal larger distances than that. There are some five different areas that might be considered as parks and garages around the exterior, two theaters, a business section over in here. This gives an architect's drawing of an airplane view, so to speak, of what it will look like when completed. This gives probably a better conception of what we are shooting at.

Acting Chairman WILLIAMS. Right in that connection, how many of those buildings are there?

Mr. ECKER. There will be 51 buildings but 171 units. I have a floor plan here and you can get a better idea of what I mean by that. That is a unit, but we quite frequently, as you will see from the design, will hook two or three or four units together. In the design

of these buildings, our board has constantly had in mind producing the maximum amount of usable area for the minimum amount of construction necessary, by designing largely in the form of a square, for example. This is just one little indication. A square gives you the smallest perimeter which will surround a given number of square feet, and you will notice that the bulk of these units have been designed in squares.

The core of the building is in the center of each unit, you will see, and then the apartments added around that, so that four apartments lead to each stair and elevator entrance. In standardization of the various types of wings which are to be fitted onto the core and onto each other, of course, there are savings in price and materials because of the volume that can be brought in that manner.

Indicating other matters which they have had in mind, all of the fill in this entire development approximately balances all of the excavation.

Mr. O'CONNELL. Mr. Ecker, could you tell me what the estimated rents are to be, or what you estimate they will be?

Mr. ECKER. The rents have not been definitely set. As I told you, we will not open up until the first of next year, and they have not been set, but we estimate that the two rooms will range between \$32 and \$34 a month; three rooms \$40 to \$51; four rooms, \$52 to \$60, and five rooms, \$63 to \$69. Included in these rents will be gas and electricity, no extra charge for gas and electricity, also no extra charge for bathrooms as half rooms, or dinettes or anything of that sort, as we were talking about before.

Mr. O'CONNELL. Have you made any calculation as to what income group you think this project will serve?

Mr. ECKER. Yes; we expect that an undertaking of this sort will serve the income groups, say, from \$1,500 to \$4,000.

Mr. O'CONNELL. Very few in the \$1,500 group, don't you think?

Mr. ECKER. Well, by comparison, yes, I think very few. I would say largely from \$2,000 to \$3,000 will be the bulk of it, in through there. But there will be some probably at these rents.

Dr. LUBIN. You figure about \$12 to \$15 a room, roughly, the range running from \$12 to \$15 a room, roughly?

Mr. ECKER. On a comparable basis with other undertakings. Yes, somewhere in there; I would say under \$15. Twelve or \$14 would be closer for comparative purposes.

Mr. O'CONNELL. If your smallest apartments rent for \$32 a month—

Mr. ECKER (interposing). Yes; but you have to take off gas and electricity for one thing.

Mr. O'CONNELL. How much do you take off for that; a couple of dollars a month?

Mr. ECKER. Yes, \$2.50, something of the sort, probably.

Mr. O'CONNELL. Taking your formula of 1 week's salary for 1 month's rent, I take it that the person with an income of \$1,560 would probably be able to rent a two-room apartment; that is about the bottom of the group.

Mr. ECKER. We said thirty-two to thirty-five. Take thirty-three and cut it down \$2.50.

Mr. O'CONNELL. I took thirty.

Mr. ECKER. That is \$360. You are multiplying that by what—five?

Mr. O'CONNELL. You can multiply it by four.

Mr. ECKER. All right; \$1,440, yes.

Mr. O'CONNELL. I did it a little bit differently. I took 1 month's rent as the equivalent of 1 week's salary—\$30 a week, 50 weeks a year, giving \$1,500 which would be as low as you can conceivably get; isn't that so?

Mr. ECKER. I don't anticipate that there will be very many people with a \$1,500 income in this development. We are not building for that group, but in a group above that.

Mr. O'CONNELL. That is what I was trying to get at. Generally speaking, this committee has been discussing the possibility of encouraging construction to meet an income group which isn't being served at the present time, and while it is an approximation, we had used a group of \$1,000 to \$1,750 to \$2,000 a year, and just speaking generally this development will serve a group which is above the group that we have been discussing.

Mr. ECKER. That is correct.

Mr. O'CONNELL. Do you anticipate that you will have any particular device for determining who your tenants will be comparable to the one used in Long Island?

Mr. ECKER. Yes. We expect to go into that very carefully. I have here a form of the type that we expect to use for the application, which will inquire as to the present address, how long the individual has been there, previous landlord, number of persons to occupy the apartment, the names, and so forth, of the individuals in the family, the name and address of the employer, any bank references, and other items of that sort, in addition to which it is our expectation to make an investigation right back at the home of these individuals who make applications for apartments.

Mr. O'CONNELL. Generally speaking, the things that you have indicated would be for the purpose of determining their acceptability as tenants and as to their adequacy of income. What I was interested in was the upper group, the top.

Mr. ECKER. I think I failed to state that also in this form we require a statement as to the amount of income.

Mr. O'CONNELL. But what I was thinking of, generally, was, Do you anticipate that you will make an attempt to limit occupancy to persons whose income is not in excess of a certain sum?

Mr. ECKER. In general; yes.

Mr. O'CONNELL. Have you made any calculations as to what you estimate your return on your investment will be according to your tentative schedule of rates?

Mr. ECKER. We are anticipating a return of 4½ percent.

Mr. O'CONNELL. And what period of amortization do you figure for your capital investment?

Mr. ECKER. In the neighborhood of 30 to 33 years.

Mr. O'CONNELL. Thirty to 33 years.

Mr. ECKER. Yes.

Mr. O'CONNELL. That is probably not nearly the useful life of the project.

Mr. ECKER. It is not the useful life, probably. We can build today to 50 years or 75 years or maybe 100 years, but obsolescence takes

place and it is a pretty difficult thing to be sure of guarding against, so it is entirely conceivable that at the end of 30 or 35 years the income obtainable would not be in excess of the operating expenses.

Mr. O'CONNELL. That is true. I didn't indicate there was anything wrong with using that amortization period. I wanted to be sure there was no real connection between the physical life of the property and the amortization period. You have other factors to take into consideration. I also take it that you have minimized the risk of what was referred to as neighborhood obsolescence by having built your own neighborhood.

Mr. ECKER. That is what we believe. That is why we believe this type of thing is a safe investment for us to put our funds into.

Mr. O'CONNELL. The legal limitation on the Metropolitan engaging in direct housing construction is that it may not invest more than 10 percent of its assets.

Mr. ECKER. That is correct.

Mr. O'CONNELL. It isn't necessary to go into that, and that only for a period of 5 years.

Mr. ECKER. Only for a period of 5 years, but in that period of time it may possibly be extended under legislation.

Mr. O'CONNELL. There is no tax exemption?

Mr. ECKER. No tax exemption whatsoever.

Mr. O'CONNELL. Would you care to state whether or not in your opinion the sort of enterprise that is evidenced here is a thing which holds hopeful outlook for substantial expansion in the future for institutions such as yours?

Mr. ECKER. Well, I don't feel I can express any opinion as to other people's point of view on these things. It is their responsibility.

Mr. O'CONNELL. Just express your point of view.

Mr. ECKER. As far as we are concerned we naturally having gone into this thing believe it is a safe and sound thing to do.

Mr. O'CONNELL. I think that probably was an unfair question.

Representative WILLIAMS. Have any other institutions undertaken it?

Mr. ECKER. The Prudential has built some low-cost housing. I don't believe it has been done on a very large scale as yet.

Representative WILLIAMS. Do you know what their success has been?

Mr. ECKER. They are watching us, I suppose.

Representative WILLIAMS. And you are watching them. Do you know what their success has been?

Mr. ECKER. It is my impression that it has been entirely satisfactory, but I am not familiar with just what their experience has been.

Mr. O'CONNELL. Mr. Rogers testified the other day very briefly about the experience of the Prudential with building a low-cost housing project in Newark, I believe, or Jersey City, and he expressed it as having been a little less favorable than Mr. Ecker. He said that the Prudential had undertaken it as a semiphilanthropic move under special legislation that permitted that particular development, and that is the Prudential experience, I believe.¹

Representative WILLIAMS. What is your tax-assessment percentage rate?

Mr. ECKER. Around 3 percent.

¹ Supra, p. 5081.

Representative WILLIAMS. That is your rate, and what is the assessment?

Mr. ECKER. In this situation it is about 3 percent, my recollection is.

Representative WILLIAMS. What is your assessed valuation?

Mr. ECKER. I gave that for the record.

Representative WILLIAMS. I don't mean your particular one. I mean what is the percentage of the market value or true value of the property?

Mr. ECKER. Well, in New York City they attempt to assess at true value.

Representative WILLIAMS. At real value of the property.

Mr. ECKER. Yes.

Mr. O'CONNELL. I have here the tax rate for various counties or boroughs in New York City in 1938, and the rate was 2.93 in Manhattan, 2.92 in the Bronx, 2.94 in Kings, and 3.04 in Queens. My understanding is that the law of New York forbids the assessment to be in excess of the fair market value, and whether or not the assessment actually reflects the fair market value I think would be very difficult to say. The law says that it shall not be more. In the case of the Long Island project, as I recall the figures, the cost of the project, land and buildings, was something over \$7,000,000, and the assessment was something slightly over five. Am I correct?

Mr. ECKER. That is at the time. The property has depreciated.

Mr. O'CONNELL. And you have taken about \$2,000,000 in depreciation during that period.

Acting Chairman LUBIN. Mr. Ecker, what do you estimate to be the actual construction costs of the new project, leaving out such costs as utilities, sewers, roads, streets, landscaping, and so forth, the actual cost of construction of the building?

Mr. ECKER. I am sorry, Dr. Lubin, but I cannot answer that at this time. After we have completed it we shall be very happy to give you any information.

Acting Chairman LUBIN. May I ask another question? How many dwelling units will there be in all?

Mr. ECKER. Forty-two—no, 12,000. Forty-two thousand rooms.

Acting Chairman LUBIN. Which means you are going to buy 12,000 bathtubs and 12,000 toilets and 12,000 lavatories, and so forth.

Mr. ECKER. Yes.

Acting Chairman LUBIN. I take it you have already placed orders for some of those.

Mr. ECKER. That is correct.

Acting Chairman LUBIN. Do you know how much cheaper you are buying them than the average builder of a single house would have to pay for the same product?

Mr. ECKER. No; but I think it would vary very materially in different undertakings.

Acting Chairman LUBIN. You say you get them under bid, but are you getting these bids from retail distributors or from the manufacturers direct?

Mr. ECKER. I have to ask for help on that.

Mr. EKEN.¹ We really bought that stuff direct in this way: We insisted upon carrying on negotiations in the case of the manufacturer,

¹ Andrew J. Eken, president, Starrett Bros. & Eken, New York City.

in the case of bathtubs with Kohler direct, but the order was finally placed with the plumbing contractor.

Acting Chairman LUBIN. May I ask another question. Were there any materials at all that you were unable to purchase through direct negotiation with the manufacturer?

Mr. EKEN. No. There were some cases where we didn't buy material direct, where the subcontractor bought it, but we had no difficulty buying direct in any case where we saw fit to do so.

Acting Chairman LUBIN. Would Mr. Eken know what the relative price of bathroom fixtures was that you paid as compared to the going rate in New York for similar Kohler products?

Mr. EKEN. As a matter of fact we didn't pay a great deal of attention to the going rate. We had in mind certain standards that we tried to buy to. I think there is a great deal of misconception on this thing. I think a lot of people have the wrong idea as to what comes out of this question. I think that you get great economies when you are buying up to a certain point. I think after you buy to a certain point there is very little economy beyond that. That has been our experience in many large operations. We have built a great many—I won't say a great many, we built the biggest of privately owned operations and we built the biggest of the Government's, and it has been our experience that up to a certain point we get these economies and beyond that the thing flattens out and there isn't a great deal maintained by additional.

Acting Chairman LUBIN. A contractor who testified here recently when asked why he didn't go to Kohler, said Kohler wouldn't let him on his property; he had to work through a subcontractor who had to purchase at retail.¹

Mr. EKEN. You know, of course, that in the city of New York you can't buy a bathtub and put it in; it has to be bought through a plumber, and that was so in our case, but we made it our point to do the negotiation and finally bring it to the place where the plumber bought it.

Acting Chairman LUBIN. But at a price negotiated between you and the manufacturer.

Mr. EKEN. Yes; we negotiated it.

(The witness, Mr. Ecker, was excused.)

Acting Chairman LUBIN. The committee will be in recess until 10:30 tomorrow morning.

(Whereupon, at 4:40 p. m., the committee recessed until 10:30 a. m., Friday, July 7, 1939.)

¹ Supra, p. 5009.

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

FRIDAY, JULY 7, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Thursday, July 6, 1939, in the Caucus Room, Senate Office Building, Representative B. Carroll Reece presiding.

Present: Representative Reece (presiding), Messrs. Davis, Berge, Arnold, O'Connell, Lubin, and Brackett.

Present also: Messrs. Lowell J. Chawner, Department of Commerce; Gordon Dean, Department of Justice; William T. Kelley, Federal Trade Commission; Hardwick Stires, Department of Commerce; Gerhard A. Gesell, Securities and Exchange Commission; and Peter A. Stone, coordinator of construction studies for the committee.

Acting Chairman REECE. The committee will come to order, please.

Are you ready to proceed, Mr. O'Connell?

Mr. O'CONNELL. I am, Mr. Chairman. I should like to make a very brief statement before we hear from the first witness. Today the committee will hear testimony relative to other major factors in the cost of housing and the possibility of effecting substantial reductions in costs there. I refer more particularly to the cost of labor and materials employed in the construction of dwelling accommodations. I think it appropriate to explain at this time that the treatment to be given this matter of labor and material costs insofar as this presentation before the committee is concerned, will differ substantially from that given finance costs. This is so for two reasons: First, to make the type of investigation necessary to acquaint the committee with the nature and extent as well as the effect of the deterrents to construction that are generally held to prevail in this field, and to do so in anything but the broadest of general terms would have involved time in both preparation and presentation not presently available to the committee. Secondly, the Department of Justice has been for some months past and is at present engaged in making a broad investigation in this field as a part of the regular duties of its antitrust division. This work, about which you will hear more shortly, has not been completed and to anticipate its results would be untimely, as would an attempt on the part of the committee to duplicate it be inadvisable.

It is true that the restrictive practices in this field have already been referred to briefly before this committee, and it is also quite probable that the testimony of subsequent witnesses will include further discussions along this line. However, it is our belief that the testimony of the next witness will operate not only to indicate generally the nature and extent of the practices to which I refer, and the scope of

the program which the Department of Justice now has under way in connection with them, but also to make clear the considerations which made it necessary that the committee examine this area only in a general way at this time.

I should like to call the first witness this morning, Mr. Thurman Arnold, Assistant Attorney General in Charge of the Anti-Trust Department, and a member of this committee.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in this proceeding will be the truth, the whole truth, and nothing but the truth, so help you God.

Mr. ARNOLD. I do.

**STATEMENT OF THURMAN W. ARNOLD, ASSISTANT ATTORNEY
GENERAL OF THE UNITED STATES, WASHINGTON, D. C.**

Mr. ARNOLD. I am going to impose on the committee and read my statement rather than to take the longer way of presenting it orally. The reason I do that is that this statement representing future activities of the Department of Justice in connection with the building industry necessarily deals in expectations; they are expectations which have to be weighed by the committee in determining remedial legislation, but since it is connected with possible cases I think that great care is necessary in the statement and therefore I will read it.

Acting Chairman REECE. The committee will be very glad to have you proceed as you have stated.

Mr. ARNOLD. The central problem in the building industry was sharply outlined by Dr. Lubin when he said that we needed 525,000 housing units per year for 10 years in order to maintain even our present inadequate level of housing in this country. It appears from the testimony already given that we have no chance of getting these units under present conditions. My testimony today will deal with the functions which antitrust enforcement can perform in solving this problem provided it operates on a broad scale in coordination with other Government agencies and with private capital.

As a preliminary summary of the matter I am about to present I shall make a few general observations:

1. Unreasonable restraints of trade, nearly all of which are probable violations of the law, are, in my opinion, the most conspicuous reasons for high construction costs. They appear, today, at every level of the building industry.

2. The effect of these restraints is not only to maintain prices at a high level but also to increase them when volume increases. The result is the ridiculous spectacle of a rise of building costs amounting in some cities to nearly 25 percent which choked off the building boom of 1936 and 1937.

3. The combinations which cause these price rises in the face of increased volume have prevented even State and Federal subsidies from giving adequate stimulus to private housing.

4. The building industry does not seem capable of curing itself. Operating alone, without Government protection from the aggression of others, a single heavy industry, or the distributors of its products, or the contractors which install them, or the labor which works on them, only handicap themselves to the advantage of others when they prevent price competition.

5. The most effective tools at present available to attack these restraints are the antitrust laws.

Sooner or later it will become the duty of this committee to consider remedial legislation, and the antitrust laws do not fill the entire picture. Financing, the development of more efficient organizations, plans to reduce seasonality and to abandon wasteful practices in a coordinated fashion, land costs, local taxes and fees, all require affirmative action which goes beyond mere prosecution. However, any study of affirmative action by new legislation must be preceded by a careful examination of the remedies available under present laws. Such an examination necessarily deals with the future and not with provable facts. However, an estimate of the probability of success of the Department's efforts under present laws is an important factor in determining whether additional legislation is required.

I shall begin with a summary of the high points in the Department's prosecution program. These points together constitute a method of coordinating the activities of the Department of Justice with other Government agencies and with business, with the hope of getting more homes for Americans. The purpose is to achieve this objective with the utmost reliance on competitive private initiative:

1. The objective of antitrust enforcement should be to establish a free and independent economy in the building industry—not Government controlled or dominated. Legal procedures should be utilized in a reasonable way to get constructive results. Trust busting should not be considered an end in itself.

2. To accomplish such an objective an antitrust program in the building industry requires simultaneous action on a Nationwide scale against all the restraints which affect the price of the final product—the completed house. This is essential so that by attacking one group we shall not handicap them in the total situation. It is also essential in order to show the effect on interstate commerce of restrictions which might otherwise appear to be local, and finally, it is essential in order to permit development over a broad area of experiments in mass-production of housing.

3. Such a program should be coordinated if possible with voluntary allocation of funds by State and Federal financing agencies to the localities which are first freed from the paralyzing effects of price-fixing combinations. In this way increasing volume should lead to lower prices instead of higher.

4. Such an enforcement program should be coordinated if possible with the efforts of private organizations interested in cheaper houses, which are now forced to compromise with various aggressive combinations for the privilege of constructing homes.

This program has been made possible, for the first time in the history of antitrust enforcement, by appropriations of Congress which have more than doubled the personnel of the Antitrust Division since I came into office. With this program all of the individual members of the committee are, of course, familiar. Indeed, it is one of the important products of these hearings.

As evidence of that I point to the fact that from 1890 to the formation of this committee no attempt was made to form an organization adequate for the enforcement of the antitrust laws. In the trust-busting campaign of Theodore Roosevelt there were only 5 lawyers and 4 stenographers engaged. At the beginning of this administration

there were only 18 in the Antitrust Division. Today we have 140 lawyers and with the present appropriation will be able to increase our staff to over 200. For the first time antitrust enforcement on a Nation-wide scale is a possibility. The present possibility of actual enforcement is due, I believe, to the interest in the monopoly problem created by these committee hearings. The Department acts only on complaints of businessmen. Since the hearings of this committee began such complaints have increased enormously. In my opinion this is due to the fact that through the activities of this committee for the first time in many years businessmen harassed by aggressive combinations have had reason to hope that their difficulties were being given consideration.

So much for the general picture. I shall now attempt to develop these observations in more detail.

THE ECONOMIC PURPOSE OF ANTITRUST ENFORCEMENT IN REMOVING RESTRAINTS OF TRADE IN BUILDING

Mr. ARNOLD. By a wise, judicial construction, so long settled that it is removed from the possibility of argument, the Sherman Act prohibits only those restraints of trade which are unreasonable. It is, therefore, not designed to break combinations simply to celebrate the moral value of trust busting.

Broadly speaking, combinations which are necessary in a machine age to create efficient mass production or distribution, and which pass the savings onto consumers, are not unreasonable under the antitrust laws. This is not true where complete monopoly is the result, but that problem seldom arises in the building trades. Therefore, the problem of unreasonable restraints in the building industry today is not primarily whether a concern is big or little. It is as unreasonable for a small organization to prevent the use of standardized products, which can only be produced on a large scale, as it is for a large organization to eliminate the competition of small units which offer lower prices. Indeed, the boycott of standardized materials is one of the principal restraints of trade today in the building industry. The stoppage of the flow of competing materials and services in commerce is equally illegal whether it be done by vertical combinations, by manufacturers, by contractors, by labor, or by municipal ordinances and State laws, many of which in reality are not building regulations, but protective tariffs against other parts of the Nation.

Therefore, I believe the principles of the antitrust laws are adequate to accomplish an economic purpose in the building industry. The main problem is the development of an effective procedure and an adequate organization.

I am aware of the fact it is impossible to employ a rigid formula or rule of thumb in defining restraints of trade. This bothers those who search for definite and certain plans. Nevertheless it is one of the outstanding advantages of the antitrust laws. Practically applied, it means that we can take up one industry at a time in the light of its particular facts. This practical case-by-case approach is the best guaranty of economic freedom. It does not lead to certainty. Yet, broadly speaking, there are only two ways by which government may exercise supervision over industry. One is to appoint an administrator to run the industrial organization like a parade. Such an

administrator can tell businessmen what to do in advance. He can command them to execute "squads right" and "squads left" and there is no uncertainty in that process. The competitive way is to put the courts in the position of an umpire in a baseball game. A player who runs from second to third base under that system cannot expect the umpire to tell him in advance whether he will be safe. He must take his chance on being called "Out." That process has its hazards, but they are the hazards of economic freedom. That is the procedure in the antitrust laws, by way of a rough analogy. The only alternative in the long run is regimentation.

This does not mean that certain "toll bridges" over which everyone must pass can be operated without strict government control. The main channels of trade can still be free only if the necessary toll bridges and public utilities are properly located and controlled. The advantage of the antitrust laws is that they permit us to determine where those necessary toll bridges must exist through the method of examining the problems of each industry separately. They permit us to take up the building industry as a separate problem. And that, I assert, is the only practical way to do it.

SUMMARY OF THE PRINCIPAL RESTRAINTS OF TRADE IN THE BUILDING INDUSTRY

MR. ARNOLD. About a week ago Senator King asked if this series of hearings upon the building industry would take up the question of agreements and restraints which had the effect of increasing building costs. Thus far relatively little has come into the hearings on this subject. I should like to make clear for the record that the absence of any detailed study of such restraints during these hearings is due to the committee's deference to a request made by the Department of Justice. The Department now has under way a Nation-wide investigation of violations of the antitrust laws in the housing field. This investigation contemplates legal proceedings wherever the facts warrant. It is obviously unwise to use the present hearings in a way which would warn violators of the law that their particular practices are under investigation or to give such violators a chance to claim immunity as a condition of testifying before this committee. It also would be obviously unfair in this preliminary stage of our investigation to hale before the committee, upon partial evidence, individuals or groups whom we might later find to be innocent. Hence, it was decided to limit the discussion of restraints of trade in housing to a general summary of the extent, character, and significance of such restraints. I have been asked to present this summary.

Restraints of trade are not scarce in the housing field. They are so prevalent and their aggregate effect so important that the situation is no longer tolerable. Throughout the history of the Antitrust Division about 25 percent of the cases instituted have dealt with manufacturers and distributors of building materials or with building-trades contractors or building trades labor. I offer the committee as an exhibit a list of these cases, showing the name of each case, the year in which it was instituted, the character of the offense charged, and the action which was finally taken.

MR. O'CONNELL. We offer these for the record.

Acting Chairman REECE. They may be admitted.

(The document referred to was marked "Exhibit No. 866" and is on file with the committee.)

Mr. ARNOLD. The Federal Trade Commission, too, has conducted many proceedings in the building field. Through the courtesy of the Commission, I am offering as an exhibit a copy of each complaint and order concerning building issued by the Commission in the last 4 years. These include actions for price fixing against such important manufacturing industries as cement, window glass, and building wire, and against such important distributing groups as Nation-wide associations of material dealers, regional associations of lumber dealers, and regional groups of organized contractors.

Mr. O'CONNELL. Was it your intention to offer these for the record to be filed?

Mr. ARNOLD. Both of these are to be filed.

Mr. O'CONNELL. Not to be printed in the record?

Mr. ARNOLD. I see no reason why they should be printed.

Acting Chairman REECE. They may be so received.

(The document referred to was marked "Exhibit No. 867" and is on file with the committee.)

Mr. ARNOLD. In spite of the sustained activity of the Federal agencies enforcing the laws against monopolistic combinations and unfair competition, the restraints in the building field have scarcely yet been checked. The scope and vigor of the complaints which have come to the Antitrust Division during the last few months are evidence of that. Most of these complaints are by businessmen, contractors, building-material dealers, manufacturers, and architects, who want help against the gangs which are trying to force them into agreements or out of the market. The Attorney General's announcement of our intention to proceed on a broad front against these restraints has been greeted by a general approval both within the construction industries and outside them such as I have never encountered in any other field in which the Antitrust Division has been at work. Many groups concerned with building are so anxious to end an intolerable situation that they will willingly run the risk of being themselves involved in our prosecutions.

Unreasonable restraints of trade appear at every level of the building industry. To give a picture of the problem I shall repeat a list I have utilized before of typical practices which have been found in recent Government proceedings or investigations or alleged in substantial complaints to the Antitrust Division.

PRODUCERS OF BUILDING MATERIALS

Mr. ARNOLD. Producers of building materials have fixed prices either by private arrangement or as the principal activity of trade associations. Owners of patents on building materials have used them to establish restrictive structures or price control, control of sales methods, and limits upon the quantities sold, in direct contradiction of the broad intent of the patent laws to encourage, through inventions, the development and spread of new productive methods. Some of these patent holders have taken advantage of their control over patented products to require their licensees to give them control over unpatented products also. By the use of basing point systems, and zone price systems, various building-materials industries have

established by formula a rigid structure of uniform prices throughout the country; and in some of these industries such price formulas have encouraged the wasteful location of industrial plants and the wasteful shipment of products to great distances.

The use of joint selling agencies has been another means by which some of these groups have undertaken to maintain their prices. In some groups the various producers have subscribed to the theory that every member of the industry should have a definite share of whatever business there is to be done, and that no concern should try to get more than its share by price competition.

Supplementing these various devices for keeping the prices of building materials high have been a series of other devices used to discipline competitors who are unwilling to play ball. In one industry the means is cutting off the supply of raw materials. In another it is starting a series of harassing lawsuits. In a third it is the harassment of distributors by selling through the seller's own factory branches at prices lower than those at which the distributor is permitted to resell. In a fourth it is the maintenance of orthodox channels of distribution by concerted refusal to sell to groups representing new methods of sale or new price policies.

Overlying this mass of practices, often as a result of the pressure placed upon the weaker and smaller competitors, there is a growing concentration of control in many of these industries. For the most part the increase in the size of the business unit has not been the necessary result of more expensive machinery and bigger plants; it has come about by the merger of competing enterprises which continued after their union to produce in very much the same way as before. Its chief significance has been an increase in the power of the particular business unit and a greater ease in reaching an understanding with the two or three other large concerns in the industry.

DISTRIBUTION OF BUILDING MATERIALS

Mr. ARNOLD. Various groups of distributors of building materials engage in two kinds of restrictive practice. First, they try to raise the price of their services by establishing a fixed mark-up between the price they pay the manufacturer and the price at which they resell. For this purpose they collusively determine their mark-up or their selling price, and sometimes agree among themselves to boycott manufacturers who will not cut off supplies from price-cutting distributors. Sometimes they conspire with manufacturers' groups to establish a joint price control binding upon the manufacturers' and the distributors' organizations alike.

The second type of restraint by distributors arises from the effort to see to it that all business passes through their hands and that no new methods of distribution are introduced which will dispense with their services. The great weapon in this field is the boycott. Groups of wholesale distributors may boycott those who sell direct to retailers. Groups of retailers may boycott those who sell direct to mail-order houses or direct to the ultimate consumers. Sometimes the members of a distributors' organization will boycott any manufacturer who sells in their territory to nonmembers. To secure freedom in methods of distribution, some manufacturers have found it necessary to pay the distributor a commission on sales even when the customer and the

manufacturer have dealt direct and the distributor has had no part in the transaction.

CONTRACTORS

Mr. ARNOLD. Contractors who erect buildings add their own systems of restraint. Many contracting groups maintain bid depositories in which copies of all bids and estimates are supposed to be filed prior to the award of the contract. In some of these depositories the bids are opened before the contract is let and the information thus obtained is used to coerce low bidders to withdraw or raise their bids. Other contractor groups maintain central estimating bureaus which calculate the cost of the job and supply the various contractors with the bids they are to make. In still other groups a central bureau determines the specifications for materials and labor to be included in the bid, and the contractor is expected to apply standard prices and labor rates to these specifications and thereby to arrive at the same bid as everyone else. Some bidding rings determine in advance which contractor is to get the job and arrange their bids so that everyone else bids higher than he.

In addition to these efforts to control their charges for service, many of these groups set up little closed markets from which they exclude outside contractors or new types of services. They may try to keep all the contracting work for local contractors or for contractors who are members of the association. They may refuse to use materials which have been bought from any source of supply other than themselves. They may insist that prefabricated products not be used in the buildings they work in. They may cooperate with contractors interested in other materials, so that no contracting group will work on a building if a product assembled at the factory is used contrary to the wishes of some other group.

LABOR

Mr. ARNOLD. The building-trades unions often participate in these policies of restraint and add new restraints of their own. In recent years they have frequently been used as the strong-arm squads for collusive agreements among contractors, refusing to supply labor where the contractors' ring wishes labor withheld. In other cases the unions themselves have refused to permit the use of new products or new processes because of their fear that the new method might make it possible to erect a house with fewer hours of labor than the old.

LEGISLATIVE RESTRAINTS ON TRADE

Mr. ARNOLD. Such practices as I have just described crystallize and lead to legislative restraints on trade. Many building regulations are, in reality, protective tariffs. The licensing and registration of contractors by boards of contractors affords a means of discipline over contractors. In one State a contractor who must take out a license is one who undertakes "to construct, alter, repair, add to, subtract from, improve, move, wreck, or demolish any building, highway, road, railroad, excavation, or other structure, project, development, or improvement, or to do any part thereof, including the erection of any scaffolding or other structure or works in connection therewith."

In other words, if you drive a nail to put up a shelf in the house, the contractor is offended.

To this broad class of work, which includes practically everything, the statute applies a method of rating bidders according to vague standards interpreted by the contractors themselves. It then puts handicaps on out-of-State contractors and out-of-State products. This is not an isolated example.

On top of legislative restrictions are added municipal ordinances designed to restrain competition. They start out from the fact that there must be protection from fire and safeguards of minimum health requirements. They develop into legally established boycotts, particularly relating to walls, roofs, electrical work, and plumbing. I am reliably informed that plumbing which is good enough for the magnificent Department of Justice building cannot be used in private homes in many cities.

I do not need to elaborate the significance of these restraints. Most of them are intended to raise or maintain prices and have been successful in doing so. Although the decline in the volume of construction was conspicuously greater than that of most other industries during the depression which began in 1929, the level of building materials prices and of building costs fell less than other prices. When building recovery began, the effect was just the reverse. By 1936 the volume of construction, including public work, had recovered from the \$4,000,000,000 of 1933 to about \$8,000,000,000. From 1936 to 1937 it rose less than half a billion dollars, and in the latter year totaled not quite \$8,500,000,000, a little less than two-thirds of the volume to be expected at prosperity levels. Urban residential construction rose about 27 percent during the year, but was still only 40 percent of the 1929 level.

Nevertheless, during that year the cost of constructing a small house rose more than 10 percent throughout the United States and in some large cities rose more than 25 percent. Building costs have moved flexible upward but not downward; and the aggregate effect of the restraints in the building industry appears to be a gigantic stairway of prices and costs in which the level attained during the period of rising prices becomes the taking-off point for the next period. The significance of this kind of behavior in building has already been brought out before this committee. Figures presented on the opening day of these hearings showed that more than half of the families of the country cannot afford to occupy houses costing more than \$4,000 to build. At present levels of cost this means that the commercial building industries have priced themselves out of half the market and have left the need to be met, if at all, by various forms of public subsidy.

ECONOMIC EFFECT OF REMOVAL OF RESTRAINTS IN THE BUILDING INDUSTRY

Mr. ARNOLD. Here, of course, I am talking in terms of expectation. Of course, I do not suggest to the committee that unlawful restraints are the only source of high construction costs. Credit facilities offer one of the outstanding means of reducing ultimate costs. Land values are often high. Fees and charges are imposed on everything from the building permit to the recording of the title deed. Remedies

must be found to supplement the removal of restraints by antitrust enforcement. Such remedies, however, are not within the scope of this report.

The economic effect of restraints of trade in building may be divided into five categories:

1. They have kept prices from dropping when purchasing power dropped; and when purchasing power rose, they have raised prices still faster.

2. They have harrassed, boycotted, and eliminated competitors able and willing to reduce prices.

3. They have kept the industry horizontally split into groups whose separate contributions to the final product are so limited that no single group can get increased volume by lowering prices. Thus they have created a situation where the incentive of each group is to raise prices to obtain for itself the greatest share of any new money available for housing.

4. They have handicapped the use of prefabricated materials and thwarted the development of methods of mass production in the industry.

5. Finally, and most important, these practices have prevented experiment in housing design, materials, and methods of construction.

The competitive system should give freedom to the man with a new idea to try it out, even if he goes broke in the process. The advantages of such experimentation are to be measured by the inventive genius of the American people and they can't be measured by cost accounting. The housing industry is full of new ideas. At present the execution of such ideas must be a compromise with existing gangs. Hence, no one knows how a house ought to be built, what materials are most economical, nor how they should be distributed.

It is as impossible to put a dollars-and-cents value to the economies that can come from free competitive experimentation as it would have been to predict the development of the modern automobile at the time when Henry Ford first broke through the combination which was keeping him out of manufacturing under the pretext of stabilizing the capital structure and profits of the older automobile companies.

PROCEDURE NOW AVAILABLE TO ATTACK RESTRAINTS OF TRADE IN THE BUILDING INDUSTRY

Mr. ARNOLD. The key to effective enforcement of the antitrust laws is to attack simultaneously all of the restraints which interfere with the distribution of the final product to the consumer. Combinations exist at every stage of every industrial process. Businessmen caught in such a situation are unable by themselves to change the pattern. They have to violate the law in order to survive against aggressive combinations which are attacking them. If, therefore, we pursue single corporations or individuals and leave others alone, or prosecute them at a later time, we simply give an advantage to the violators who do not happen to be under investigation. We must take up at one time all combinations which affect a final product in order to get results.

This is true in general, but it is particularly true of building. In the past we have spent most of our energy in pursuing complaints against particular concerns scattered all over the country.

A house is the product of a tangle of goods and services. Therefore, such helter-skelter activity has had little effect. No one who furnishes any single element which goes into the completed product can greatly raise or lower the cost of the whole product. No major economic purpose can be attained by pursuing in an uncoordinated fashion a labor union in Los Angeles, a group of contractors in Chicago, and a heavy industry in New York for antitrust violations in the building field. Of course, I must add it is our duty to prosecute complaints, and isolated prosecutions may protect particular competitors from injury. But the economic results in housing can only be accomplished by prosecuting on a Nation-wide scale, and simultaneously, the various combinations which are creating the log jam in the building industry.

This procedure involves the simultaneous investigation and prosecution of all restraints affecting the building trade in typical cities all over the United States. It has the following advantages:

1. It will make it easier to show that particular building restraints which by themselves appear local are actually affecting interstate commerce substantially and on a broad scale. In a coordinated program one prosecution will throw light on another. This is already being demonstrated in our investigation.

2. The home builders in one city by a coordinated Nation-wide program may become aware of how restraints in their home towns are affecting them in comparison with practices in other cities.

3. The constructive purpose of the antitrust laws will be emphasized. Enforcement will not appear to be an attack on any individuals for the purpose of enforcement of the law as an end in itself.

4. A Nation-wide enforcement may be coordinated with State and Federal agencies which subsidize housing. Local enforcement cannot be so coordinated. For example, it is not unreasonable to expect that out of a number of prosecutions a break in building prices will result in particular cities. With that evidence that the underbrush has been cleared away, funds from State and Federal agencies may be put to work in those cities to increase volume of construction. Thus the spectacle of Government or State money being spent where the expenditures result in a price increase may be avoided. Public funds will have an increased purchasing power. That increased purchasing power may be reflected in the increased purchasing power of private investment.

5. A coordinated program therefore, may pave the way to price decreases. Here I am going to give a mere hypothetical assumption. Assume that a drop in the prices of the industries which produce building materials would lead to a substantial increase of volume. I have talked with some of the leaders in those industries about the possibility. They were afraid that any decrease in price would be absorbed elsewhere in contractors' profits or in labor's reward. One large manufacturer said, "I am at the mercy of my dealers." Similarly, building-trades labor thinks that to reduce labor costs is not to create more employment, but to enhance the contractor's profit; and contractors see no profit in reducing their own charges when labor and materials can take up the slack. If we proceed on a broad front, we can protect those who see the necessity of a price drop. We can open the door for substantial price reductions in the heavy industries. We can carry on the effect of that drop by liberating the real competing

contractor. And finally, we can say to labor, "You can get the same thing that the heavy industries are getting; a greater annual income, based upon having more work to do during the year, without need to stretch the hours of work and the rate of pay on each particular job." Without such assurance it is certainly not fair to expect labor to take the brunt. It is neither fair nor practical to deal with any element of the situation without dealing with all of them.

THE USE OF THE CIVIL PROCEDURE

Mr. ARNOLD. I am going to speak of the use of the civil procedure because, in general, this has been connected with the preventive measures which the antitrust provisions contain. For prosecution designed to clear away restraints is only the first step in what must be done. The development of a more efficient organization for the building industry will, no doubt, require at some points affirmative action to reduce seasonality, to develop new materials and processes, and to abandon in a coordinated fashion wasteful practices which cannot be terminated by mere prosecution.

The equity suit and the civil decree are available as means of meeting these needs. The door is open for any group which wishes to propose a constructive solution for the problems of its industry to submit its proposals. The cooperation of the Department of Commerce is available to us in considering them. If we think that they offer the user of the product not only the removal of unlawful restraints but further advantages which cannot be achieved by prosecution, we are prepared to submit them to a court with a recommendation that the court adopt them as its decree in the case. The final decision by a Federal court affords a safeguard against arbitrary administrative action on our part and against the acceptance of illusory remedies which may be offered.

I want to be particularly clear on this point. The Department will not recommend the court's approval (and I trust no court would accept) any decree which is in violation of the antitrust laws. It will not, except in cases where past acquiescence or other equitable considerations make prosecution impossible, recommend a decree which goes no further than the discontinuance of unlawful practices without penalty for past action. We do not conceive the consent decree as a device for smuggling unlawful cartels into American economic life, nor for freeing offenders from penalties. We shall be glad to use it where it accomplishes not only the purpose of ending violations of the law but also the further purpose of providing safeguards for the public interest which could not otherwise be provided.

COOPERATION WITH PRIVATE INDUSTRY

Mr. ARNOLD. The procedure outlined offers a constructive opportunity for private industry which is devising new methods or using new materials. It is hoped that houses designed to be safe from fire hazards and safe according to health standards may be simultaneously offered by private contractors in a large number of cities at once. There are already organizations in the field devoted to experiments with this kind of private housing. They are now hampered at every turn. Such an organization would prove a testing ground for unreasonable restraints, particularly those of a legislative character. If

in a State or city it is impossible for private industry to build a house of this kind which is healthful, safe, and also cheap, it becomes the immediate duty of the Department to find out why. Unnecessary construction luxuries must not be forced on those unable to afford them, such as, expensive plumbing, roofing, and walls. Local building regulations or practices which do this, or which in reality are local protective tariffs, should appear clearly in their true character against such a background. Thus the Antitrust Division may cooperate with and encourage Nation-wide experimental activity of this character. It may clarify the problem for the courts by furnishing them concrete examples of experimental housing which is being restrained.

Such a coordinated effort should bring home to the public the cost of a system of domestic protective tariffs. This plan to protect safe and cheap housing experiments on a Nation-wide scale is as yet in pure embryo form. My only justification in giving the idea public circulation at this time is to interest builders in it. Several of them have already started to investigate its possibilities, but I wish to point out and make perfectly clear that the initiative must come from private industry. It cannot come from the Antitrust Division, because we cannot enter the construction game.

NECESSARY PROCEDURAL AMENDMENTS

MR. ARNOLD. Senator O'Mahoney, with the approval of this committee, has recently introduced a bill which will permit the greater use of the civil proceeding. At present the only preventive effect is found in criminal proceedings. The present utility of the civil procedure is limited to cases requiring some sort of constructive organization of the industry in order to maintain or reestablish competitive conditions. It looks to the future. The criminal procedure is now the only penalty for past misconduct and hence offers the only deterrent.

The bill introduced by Senator O'Mahoney would provide a more adequate device for penalizing past conduct and would eliminate the necessity for using the indictment exclusively in cases where a penalty is needed. It does not prevent the use of the criminal indictment. It only provides a speedier and more equitable method in cases which are more in the nature of public torts than crimes. I want to say that in addition to what I have written here I have noted a good deal of misunderstanding about the nature of this bill. It seems to be felt in some quarters that it is adding new hazards to the businessman which did not exist before. Of course, it isn't. It is simply providing that they may be prosecuted without the necessity of putting them through the criminal courts, and I do not consider it a revolutionary amendment; I consider it an ameliorating and more effective amendment in cases where due to the fact that a man is caught in one of these situations where he can't do anything else in following the pattern, the criminal indictment, even if we admit that it is only in the nature of misdemeanor, is obviously inappropriate.

There are other procedural changes which I desire to present to the committee at a later time, but inasmuch as they go so much further than building I think the time is not yet ready. One has as its purpose the speeding up of our somewhat cumbersome procedure by permitting the Federal Trade Commission to aid the already overburdened Federal judiciary, acting as master in the finding of facts, and

I have been discussing that with the Federal Trade Commission. The distinguished record of the Commission, their peculiar skill and experience, make them an admirable instrument for this purpose.

CONCLUSION

Mr. ARNOLD. I am aware that this program, like all programs to the future, may fall short of its hopes. Nevertheless, an outline of its purposes and its hopes is essential in considering the general problem of housing now before the committee. And finally, since the public interest which has led to this program is due to the investigations of this committee, it is well to have the record show the present activities of the Department of Justice.

Mr. O'CONNELL. Mr. Arnold is available for questions by the committee if any of the members wish to refer to the material that he has covered.

Acting Chairman REECE. Do any members of the committee wish to ask Mr. Arnold a question?

Mr. O'CONNELL. There are one or two I would like to ask. Early in your statement you referred to the wise judicial construction which has made only unreasonable restraints of trade illegal, and then a statement appears to the effect that, broadly speaking, combinations which are necessary in the machine age to create efficient mass production or distribution, and which pass the savings on to consumers, are not unreasonable under the antitrust laws.

Could you explain somewhat more in detail what that contemplates, what type of combinations that would involve ordinarily?

Mr. ARNOLD. It is a little difficult to state it more specifically without going into our positions in particular cases. I would say in general that if you have a magnificent research organization which is constantly decreasing the price of the product, it obviously is not economic to break that organization up. If that organization is also maintaining an artificial price level, then the magnificence of the organization should not save it from being prohibited in exercising that particular power.

Mr. O'CONNELL. Specifically, assuming we had a combination of competitors which in fact fixed prices but it also could be made to appear that the price structure was such that savings were passed on to the ultimate consumer, would you conceive that that was not an unreasonable restraint?

Mr. ARNOLD. No; I would conceive that any combination under the law—and that is a broad general statement—which actually fixed prices, unless you got into this rather extreme type of case represented by the *Board of Trade case*¹ where the price quotation of the night before was allowed to be fixed to maintain it for the next morning—any combination fixing prices could not be justified.

Now the *Appalachian Coal Company case*² goes as far as any case on the subject, and I would say as to that case that its doctrine should be carefully examined and limited only to industries which are like the bituminous situation.

One of the techniques of the antitrust law is that it must be considered as taking up one industry at a time, and I don't think that we should start the argument of saying that because this thing is necessary in the bituminous-coal industry, it offers a justification for some practices

¹ 246 U. S. 231.

² 288 U. S. 344.

in the movies. In other words, the principle is clear that we don't want to interfere with a decent, orderly market for the goods, but it is not the kind of a principle which can be carried on from one industry to another as a rule of thumb.

Mr. O'CONNELL. Taking a situation comparable to the one made to appear in the *Appalachian Coal case*, you wouldn't conceive it was the function of the Department of Justice as distinguished from the court to decide that that particular combination or price fixing arrangement was illegal?

Mr. ARNOLD. The Department of Justice has necessarily, due to the limited personnel in the past, in practice made such decisions by declining to prosecute, and from 1890 on, a very great proportion of our business has ended in what was known as the consent decree. With the increased personnel, I think it will be less and less necessary to involve ourselves in that kind of acquiescence. It is not a legal acquiescence but it is an actual effective acquiescence. You can't win a case if you have only been looking at memoranda and listening to people for many years. Our hope would be never to get acquiescence in any of these cases, but only to develop the cases which would actually be presented to the court. Then, of course, the whole decision is on the court.

Mr. O'CONNELL. So that, generally speaking, a combination which would have the effect of fixing prices would be, except in a rare case, comparable to the *Appalachian case*, unreasonable restraint of trade.

Mr. ARNOLD. Unquestionably.

Mr. O'CONNELL. And also generally speaking, the reasonableness or unreasonableness, to the extent you do so, would be a question for the court to decide.

Mr. ARNOLD. It is always a question for the court to decide. The Department can never as a matter of law decide on the reasonableness or unreasonableness of a practice. As a matter of fact, the Division has been forced in the past to a position, by letting things alone so long, that a general principle which I often refer to as the doctrine that you can't unscramble eggs, has grown up in judicial decisions and you will find decisions saying, "You have left this thing alone so long you can't do anything about it."

Mr. O'CONNELL. That has been largely the result of a lack of personnel?

Mr. ARNOLD. I think it is entirely the result of lack of personnel, because of course, if it wasn't, then the law would be clear.

Mr. O'CONNELL. Is the consent decree available to you in civil as well as criminal cases?

Mr. ARNOLD. I don't like to use the word consent decree. I prefer to say civil decree. I can illustrate how every civil decree involving a readjustment of a great organization must have an element of negotiation of consent. Assume we win the *Aluminum case*, there is a corporation involving over \$100,000,000 which must divest itself of whatever holdings we will assume the court determines it will divest itself of, or split itself up in such a way as the court determines it shall split—a rule which of course must be dependable upon the situation, a reasonable, practical solution of the particular situation. You can't meet a situation of that character which requires financing, which requires negotiations between individuals, without getting up a decree involving the element of both parties getting together, and therefore I would like simply to say civil decree. It always has an

element of consent because the civil decree ordinarily involves doing something about an existing combination, breaking it up, dissolving it, divesture or something of that sort.

Mr. O'CONNELL. That brings me to one more question. On page 18 of your statement, referring to civil decrees, the statement appears—

The door is open for any group which wishes to propose a constructive solution for the problems of its industry to submit its proposals. The cooperation of the Department of Commerce is available to us in considering them.

Does that assume an antitrust prosecution?

Mr. ARNOLD. Of course not. Businessmen are entitled if it is possible, to find out at some stage or other what the Department is going to do and what their rights are. We attempt to give them a guide to our prosecution policy by public statements. In other words, we never tell them, of course, what we will do in a particular case but they ought to be able to spell out a consistent policy through these reasons and public reasons we give for prosecutions we have started.

In addition to that, the businessmen might require the protection of *res judicata*, that is, the protection of a court saying that this combination would be reasonable. For instance, the Ford and Chrysler decree tells Ford and Chrysler by virtue of the pronouncement of the court that it is not unreasonable for them to advertise a plan, use their united efforts to advertise a plan which is fair to the purchaser of automobiles and which insures decent collection efforts. That sort of thing will, if we have time to investigate it, of course, be presented to the court for its accord or disapproval, and of course, it is the court method of doing it instead of the method which was forced upon the Department with only 5 or 10 people in it, of having a whole stack of memoranda by businessmen telling the Department frankly and honestly what they were trying to do and the Department just shoving them away and saying nothing or writing some sort of letter.

Mr. O'CONNELL. As I understand it, in the *Ford and Chrysler* case there was a criminal action pending which resulted in a consent decree.

Mr. ARNOLD. Whether there is a criminal action pending doesn't make the slightest difference. Mr. Jackson first announced in the hearing before Congress, in an investigation of Judge Geiger's dismissing the grand jury, that the Department would use a civil and criminal proceedings concurrently, a practice that in the past has been approved by the Supreme Court, and later when I first assumed office on May 18 of last year—and to make it accurate I would like to get that release in the record if I may, the release of May 18—I announced, first, that no consent decrees, no civil decrees which involved the dismissal of prosecution would be entered into merely on the promise of cessation from present illegal activities, but if there were presented a decree which went greatly further in the interests of the consumer, or of the public, or of preserving competition, and which was within the antitrust laws, we might then nolle prossé the criminal indictment.

May I say further that we never under any circumstances make any suggestions as to what those decrees contain. Of course, the businessmen always ask for suggestions. We never make them. Our invariable answer is to say, "This is your industry. If you have any ideas as to how you could prevent these unfortunate situations arising in the future which have forced you into this pattern,

we will be very glad to hear them," but we will not assume the expertness which we can't assume covering all fields of American industry and suggest them ourselves.

(The release referred to was marked "Exhibit No. 868" and is included in the appendix on p. 5498.)

Mr. O'CONNELL. I don't think I made myself entirely clear. The cases you have been discussing are cases where either a criminal or civil case was started, which resulted in a consent decree. The language here seems to me to indicate a procedure something along the lines of what is referred to as administrative declaratory ruling.

Mr. ARNOLD. No; the civil suit is a completely separate suit. Let's take the process. Take the *Ford and Chrysler case*. You come in with a reasonable method which will eliminate the necessities which created those violations, the necessities being the elimination of loan sharks and bad collection practices. Now those things have got to be eliminated. Competition can't reasonably go on with outrageous interest rates and outrageous collection methods.

Now the Ford and Chrysler proposed plan is that a petition is drawn up, the court approves it, that suit is entirely separate on the docket; it would be entered into regardless of whether there had been a criminal suit pending. The relationship to the criminal suit pending is usually this: Ordinarily businessmen do not come in with any kind of suggestion; in fact, it is very seldom that they come in with any kind of suggestion unless there is a suit or investigation pending. I had hoped that maybe that will change, but at present they are usually connected with civil suits.

Mr. O'CONNELL. That is what I was getting at. These two sentences seem to me to indicate the door was open for a group to come to the Department of Justice which in cooperation with the Department of Commerce would give them something in the nature of an advance ruling as to whether or not what they proposed to do was legitimate.

Mr. ARNOLD. Not an advance ruling.

Mr. O'CONNELL. Would there necessarily be a lawsuit?

Mr. ARNOLD. In a case brought, the court by some appropriate decree—let's take the *Aluminum case*; the court by some appropriate decree breaks up the *Aluminum case*. That could be a contested suit or the Aluminum Co. could come in and say, "We are under constant attack, we don't like the present situation, and therefore we will do it without contest." That is just about the only difference between the two processes.

Mr. O'CONNELL. You mean both are in litigation?

Mr. ARNOLD. Surely, there is a suit started.

Mr. O'CONNELL. That is what I am getting at. It is a condition precedent that an action is started.

Mr. ARNOLD. Yes. For instance, the Aluminum Co. would come to us—and this is a purely hypothetical example; I am using it merely as an example—and say, "We think we had better come in and help you straighten these affairs out," and we will have the entire result of that case in a friendly manner, or have it in a contested manner. It is exactly the same situation as if I sued you for a thousand dollars. You come in and say, "I admit I owe it" and we work out some settlement.

Mr. O'CONNELL. As explained in your statement it seems to me that it does involve what is in effect an administrative declaratory ruling approved by the court.

Mr. ARNOLD. Every civil decree that has ever been put in does. There is a great deal of difference, I think, in the effect of doing it this way and doing it by administrative ruling. The difference may be illustrated, for instance, in one decree, and I am going to use X Y Z because I don't like to discuss cases. Here are 375 concerns which were complainants before the Department of Justice. Their complaints we thought were justified. We therefore commenced an investigation, and when we got through there were offers of a plan which didn't suit the 375 complainants at all but which was much fairer than anything those 375 would have put in. One of the largest and most important of these complainants came into the office and he was financing the fight against the decree. I said, "What are you doing it for? Obviously it is to your interest. You are not interested in these practices, holding an umbrella over the inefficient man."

He said, "Oh, I can't help it, I am president of the association and I have to do it."

In other words, had we gone in there with all those people before an administrative tribunal, the pressures would all have been to hold an umbrella over the offender. Under our present method we were able to get the action. This case I am talking about has never come to litigation. We would be able to get the actual practical judgment of a court unbiased by all those pressures, so there is an enormous difference between the case by case litigation of attacking restraints of trade through the Antitrust Division and the process of a general administrative ruling.

Of course, every civil decree that was ever written and every cease and desist order which the Federal Trade Commission gets out necessarily determines the limits for the future of what those people are going to do.

Mr. O'CONNELL. I think I am fairly clear in that. As I understand it, then, the Department has nothing in prospect which involves advance rulings to a group of businessmen on their conduct unsupervised by court decree, or otherwise, in connection with either a civil or criminal case.

Mr. ARNOLD. Not only that, but the Department frankly couldn't operate on the basis of giving advance rulings to business men.

Mr. O'CONNELL. I appreciate the difficulties, that is why I wanted to make sure that I understood it.

Mr. ARNOLD. It is utterly impossible, if a business man comes to see us and wants to know whether such-and-such a practice is legal, for us to ever answer him. One businessman said, "Let's get together and talk this thing over and see what can be done," and I said, "That isn't the technique we can operate. A dog talks by barking and we talk through litigation." It is the only way we can say anything—is in litigation, and we can say then something open, we can preface it by an explanation of what we are trying to do, we can subject ourselves to public criticism, which I think we should have; in other words, we must be out where the people can look at us, where Congress can look at us, and I think it is the only safe policy.

Dr. LUBIN. Mr. Arnold, in view of the existence of fair-trade laws in so many of the States, how do you plan to overcome the legal

hurdle that you will find relative to prices of building materials where the existing laws are made use of as a protective device?

MR. ARNOLD. I have an answer to that question, but my only hesitancy is, am I going to start trying a couple of cases. Let me consult a moment. I think I can say in general, Dr. Lubin, without involving any comment on litigation, although, as I say, it is always dangerous for a person in my position to extemporize upon the legal position in any situation, that I conceive that no legal privilege, whether it is a corporate franchise, whether it is a patent, whether it is a copyright, or whether it is a fair-trade law, can be used to unreasonably restrain trade. I conceive that the thing which you and I could properly do between each other couldn't be done if we were in a position that dominated industry and actually blocked the flow of commerce.

Now I have great encouragement in that position in what I consider one of the greatest opinions which has ever been written on the antitrust laws, and that is Mr. Justice Stone's opinion in the *Interstate Circuit case*,¹ which I read to take just that position regarding a copyright.

Now I will give you another complaint, and this is not yet proved, but I have every reason to believe it is so. In one of the States of the United States they have a very simple method of estimating their cost of doing business to comply with the State unfair practice act. They send out postcards with the cost of doing business all filled in. All the dealer has to do is to send it back, the thing probably is tabulated before it comes out. That type of thing I wouldn't have any difficulty with; there is a clearly unreasonable use of a State law. I think I could go on from there and the *Interstate Circuit case* gives me a charter to handle cases like this one and to deal with many of the cases which may arise under State fair-trade laws.

MR. CHAWNER. Mr. Arnold, in these hearings a number of witnesses have called attention to difficulties in lowering costs through technological processes which now according to local agreements are required, for example, glazing of a house. Local agreements make it impossible for a builder to have that work done in a mill. The same thing is true with plumbing; if the plumbing comes completely put together, according to those local agreements it has to be taken apart and put together again. In your judgment do you feel that the antitrust laws are adequate to deal with a situation of that type?

MR. ARNOLD. I do. I am going up against a lot of litigation. You don't always win your cases, but I am going into it with a great deal of optimism and I think the whole situation has been tremendously cleared by the *Interstate Circuit* decision. Of course, I want to say this about the antitrust laws: the antitrust laws are not clarified in a good many instances because cases have not been brought to provide the test. That is the only reason. They are not clarified in the doctors' suit because nobody ever brought a case against doctors. They did in England in 1918, and the English courts said "Of course that is a restraint of trade." Our courts have not said so for the simple reason that they have never had an opportunity to say so. I think we are going to develop the law rapidly. I think we are going to have better luck with the courts if they understand our purpose. In fact, that is the only real justification for my getting out in public at this time with the statement which I am

¹ 306 U. S. 208.

making here, that if the courts themselves realize that these laws have a direction that reasonableness has some kind of a constructive meaning, I am inclined to think that they will get their own cases in proper perspective and that the public will get their cases in proper perspective, so I think we will be aided in that situation by people knowing what we are about.

Acting Chairman REECE. Are there any further questions? The committee appreciates your making the statement, Mr. Arnold. It is a contribution to the work of the committee.

Mr. O'CONNELL. I should like to call General Robert E. Wood.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in this proceeding will be the truth, the whole truth, and nothing but the truth, so help you God?

General Wood. I do.

TESTIMONY OF GEN. ROBERT E. WOOD, CHAIRMAN, BOARD OF DIRECTORS, SEARS, ROEBUCK & CO., CHICAGO, ILL.

EFFECT OF RESTRAINTS ON HOUSING COSTS IN CHICAGO

Mr. O'CONNELL. General Wood, will you please give your name and present address to the reporter?

General Wood. Robert E. Wood, Chairman of the Board of Sears, Roebuck & Co., Chicago.

Mr. O'CONNELL. Mr. Chairman, before starting with General Wood, we propose to discuss with General Wood fairly briefly the experience of his company in the construction field in the sense that they have actually done construction as a company for their employees and with that in mind I should like to ask General Wood a series of questions along that line. I take it, General Wood, that your company has in the past made some efforts to construct houses directly for your own employees. Is that correct?

General Wood. We conducted this experiment about 2 years ago.

Mr. O'CONNELL. Where was that?

General Wood. Kankakee, Ill.

Mr. O'CONNELL. And you constructed a number of houses for your employees there?

General Wood. We had a large factory there. The factory had grown very fast and there weren't any housing accommodations in the town, so we decided to put up 52 of these houses to take care of these men, and they were sold to the men at cost and they got their F. H. A. loans. The experiment was quite successful. They were snapped up right away, and in no case did the cost of amortization, in other words the cost of owning the home, exceed the rent that the man had previously been paying. Those houses were put up at a cost of about \$270 for the lot, a lot 50 by 150, and a 5-room house and garage, total cost including the lot \$3,400, which was very low. They were all constructed by union labor at Kankakee.

Mr. O'CONNELL. They were four or five-room houses, frame houses?

General Wood. Frame houses.

Mr. O'CONNELL. Kankakee is just outside Chicago?

General Wood. Fifty-six miles south.

Mr. O'CONNELL. Do you have any information as to the average monthly cost to the present owners of those houses?

General Wood. It runs about, I think, from \$25 to \$28 a month.

Mr. O'CONNELL. That would include their financing charges, their fixed charges?

General Wood. Everything, interest and amortization. At that rate they pay out in 13 to 15 years.

Mr. O'CONNELL. That is about the average term of the mortgage?

General Wood. I think so, I am not absolutely sure.

Mr. O'CONNELL. Is the figure that you give us, \$25 to \$30—

General Wood (interposing). Twenty-five to \$28.

Mr. O'CONNELL. That is the fixed charges?

General Wood. Everything.

Mr. O'CONNELL. Would it include taxes?

General Wood. No, it doesn't include taxes, but they are low.

Mr. O'CONNELL. It would include the finance costs.

General Wood. Finance, interest, amortization.

Mr. O'CONNELL. As a result of this experience, which I take it from the point of view of the company was generally satisfactory, have you conducted any further—

General Wood (interposing). It was very successful from the point of view of the men. I mean the company made no money on it, but we were so encouraged that we thought we would build 50 or 100 houses in or near Chicago, but when we attempted to do that we found that the land at Kankakee worked out about 3 cents a square foot, and the land at Chicago, the very cheapest we could find, was about 50 cents a square foot, about 17 times as much. A house that cost \$3,100 at Kankakee cost about \$4,800 at Chicago.

Mr. O'CONNELL. \$4,800 as against \$3,100.

General Wood. \$3,100.

Mr. O'CONNELL. That is exclusive of land.

General Wood. Yes.

Mr. O'CONNELL. Then in Chicago you had a very much greater land cost, but the other items that went to make up the cost of the house were higher too?

General Wood. Very much higher, and it illustrated the high costs in a large city where most of your construction difficulties are—I mean where your high construction costs are.

Mr. O'CONNELL. The difference in cost of the house was the difference between \$3,100 and \$4,800. What, in general, would you think were the major factors that would explain the great difference in costs?

General Wood. Well, there were materials, labor, and restrictions on labor in Chicago as against Kankakee.

Mr. O'CONNELL. You had union labor in Kankakee too?

General Wood. Yes, we had union labor, but there are no restrictions on installations, on materials, in Kankakee. There are a great many in Chicago; there are also certain things in the building code in Chicago which add to the cost.

Mr. O'CONNELL. Would you be a little more specific on the things that you refer to as labor restrictions?

General Wood. Well, in Chicago the labor will only install materials of certain companies or certain contractors. For instance, in plumbing, my company has an enormous plumbing business all over the country, and in all the smaller towns and cities we use union labor that will install our material as well as anybody else's; in our own

city we can't install any plumbing in any new building or in any commercial building including our own; we can't use our own stuff.

Mr. O'CONNELL. Do I understand that in building these houses in Chicago for yourself you could not install your own equipment?

General Wood. Not our own equipment. We never built them, understand, after we found out the cost. We abandoned the project after we found out the cost, because we felt that our employees would have to pay too much. It was no bargain for them; it didn't help them any.

Mr. O'CONNELL. You mentioned building codes. Was it necessary to adopt a different type of construction in the Chicago area?

General Wood. Yes. You have to have brick instead of frame, but there are many other minor restrictions. You have to use certain contractors. For instance, to illustrate the difference, it costs \$20 to install a bathtub in Chicago—I mean \$30; it costs \$20 in Detroit. You are restricted to certain contractors and certain materials, and that raises your costs in the large cities. Now when you get away from the large cities and when you get into the South you don't have those restrictions either in labor or materials. I am speaking generally, but in the large cities of the country you run into those things.

Mr. O'CONNELL. Who would impose a restriction that would prevent you from using your own bathtubs or bathroom fixtures in Chicago?

General Wood. The union, plus the contractor.

Mr. O'CONNELL. You mean the contractor wouldn't use them because the union wouldn't let him?

General Wood. Well, it was reciprocal.

Mr. O'CONNELL. Why is it to the advantage of the contractor or the union not to use your plumbing fixtures?

General Wood. Well, frankly, we don't know. We know that that system only prevails in the great cities of the United States. It doesn't prevail anywhere else. We could go to Charleston, S. C., or Knoxville, Tenn., or Macomb, Ill., and we could get a union plumber or any contractor we please, but when you get into Boston, Philadelphia, and New York, Chicago, and San Francisco, you run up against these things, and of course your building costs are very high as a result. That, plus the land cost.

Mr. O'CONNELL. Of course the difference between the 3,100 figure and the 4,800 figure—

General Wood. I may say that I think that 4,800 includes the land. I would say it is the difference between about 4,000 and 3,100.

Mr. O'CONNELL. I see, and I take it that some of the restrictions such as your building code restrictions, requiring brick construction rather than frame, have at least a background of fire protection?

General Wood. The brick instead of frame in a great city is not an unreasonable restriction. For instance, in Chicago there is only one plumbing installer and one steam and hot water heating installer, and two warm air installers who will quote a price on installing our merchandise; can't get it from anybody else; no one else will quote. On all warm air furnace installations in Chicago we are required to use union fittings and, although these fittings are made in Chicago, they cost us 50 percent more than similar fittings bought from outside.

There is only one company in Chicago from which we can buy these union-made fittings.

Then I have a comparison of these costs of installation between Detroit and Chicago. If you took a smaller town the difference in cost would be greater, but for instance installing a bathtub, \$20 in Detroit; \$31.76 in Chicago.

Dr. LUBIN. May I interrupt a minute, please? That \$31 includes cost of the material plus labor?

General Wood. That is just the installation; that is just the difference in the cost of the labor.

Dr. LUBIN. The price you paid to the master plumber for putting it in?

General Wood. Yes. Now I don't want to be misunderstood. As far as the question of labor is concerned, when you get outside these great cities your union labor is perfectly reasonable and you get fair costs. It is only in a certain number of the great metropolitan areas where you have this condition.

Dr. LUBIN. Do you by any chance have a break-down as to how much of that \$31 goes to the laborer who does the work and how much goes to the master plumber?

General Wood. No, I don't.

Mr. O'CONNELL. Were you going to continue the comparison of the costs of some of these items between Detroit and Chicago? We might be interested in that.

General Wood. To replace closet tank, \$3 in Detroit; \$5 in Chicago; closet bowl, \$4 in Detroit; \$6 in Chicago; closet combination, \$5 in Detroit; \$9.57 in Chicago.

Mr. O'CONNELL. Are those prices actually fixed at that price per installation of a fixture of that type, or is that what the labor would figure out on the basis of the hourly wage?

General Wood. No; these are actual costs, quotations; they are actual costs. In Detroit, for instance, we have a very large business in plumbing fixtures and these are taken from the records of the actual costs of installation and they are also taken from the records in Chicago, where we are permitted to install, which is only in replacements; no new buildings.

Mr. O'CONNELL. I don't want to press you on this, but referring again to the use of your own materials such as plumbing fixtures, you referred to a reciprocal arrangement between labor and the contractors that would make it impossible to use your fixtures, but I am not clear as to—it doesn't seem to me that can be the whole picture. I don't see the advantage to either of the two groups, that you mention in not using your fixtures.

General Wood. Well, as I told you, there is no advantage to the union plumber to pull the chestnuts out for the master plumber, though that is what he is doing in these big cities. Now what the deal is between the master plumber, the material dealer, and the manufacturer is I don't know; I only know the facts.

Mr. O'CONNELL. But it is difficult for me to see the advantage, even to the master plumber as such, in using one type of material as against another, so there must be some other factor in the situation.

General Wood. Of course the master plumber is not only a labor contractor, but he is a merchant and a very poor merchant. In other

words, he gets no profit on the Sears bathtub; he does get a profit on the bathtub that he buys and sells to the people for whom he installs it. That is the advantage of the master plumber.

Mr. O'CONNELL. Well, now, speaking generally, as I understand it, you moved into Chicago, or at least you made an examination of the situation in Chicago to see whether it would be economically feasible for your company to build 50 or some number of houses for your employees, and because of the cost, which seemed to you excessive, largely because of increased land costs and the increased labor and material cost, to which you have referred, it was not economically feasible, and you abandoned the project. So you never built them.

General WOOD. It wasn't economically feasible for the employee. We weren't going into this as we would sell merchandise to other people; we were doing it to house our employees.

Mr. O'CONNELL. But even at cost you could not build houses at a price which your employees could afford to live in?

General WOOD. Which we thought they could afford.

Mr. O'CONNELL. I have no further questions.

Dr. LUBIN. Are there any other materials other than bathroom fixtures that you sell that cannot be installed, except through contractors?

General WOOD. Furnaces.

Dr. LUBIN. Whole heating equipment?

General WOOD. Heating equipment and plumbing are the only places where we had trouble.

Dr. LUBIN. Now would the difference in the cost of plumbing and heating equipment be sufficient to account for that difference of \$1,700 between Kankakee and Chicago for cost of construction?

General WOOD. Oh, no. Now, for instance, there is a difference of 20 to 25 percent in the union scale between Chicago and Kankakee. Furthermore, production of the Kankakee plumber is much greater than the production of the Chicago plumber, and that is true whenever you compare the costs in the great cities of the country with the smaller cities of the South. We built a plant in Memphis, Tenn., and all our plants but one have been built entirely with union labor, and the difference between that plant and the Boston plant ran about 35 percent. It is a difference not only in scales but in the productivity.

Dr. LUBIN. Your firm is a very large distributor and also manufacturer in parts and building materials of various types, is it not?

General WOOD. Partially, yes. In roofing, insulation, paints, plumbing.

Dr. LUBIN. Would it be an exaggeration to say that in terms of paints, roofing, and plumbing that you are one of the largest distributors in America as to volume?

General WOOD. I think so; we are the third largest manufacturers of paint in the country; I don't know how we stand on roofing or insulation.

Dr. LUBIN. Do you have any idea offhand as to the relative price that you get for your roofing as compared to the so-called standard advertised brands?

General WOOD. Well, we sell very much less.

Dr. LUBIN. Do you have any idea as to what the difference would be in percentage?

General Wood. It varies from year to year; some years 10 percent; some years 25 percent.

Dr. LUBIN. You have no trouble, however, in having your materials used on new construction of various types? If I personally wanted to build a house I would have no difficulty in specifying Sears-Roebuck roofing, would I?

General Wood. I have never run across a difficulty there. Your trouble in the plumbing, where your highest cost comes in the great cities, is because your master plumber is both the labor contractor and a merchant.

Dr. LUBIN. Have you ever run across a case where a local ordinance prohibited the use of your plumbing fixtures because they didn't meet the specifications set for that particular community?

General Wood. I think there have been one or two such cases. Not often. We are often hampered, though, by the master plumbers and city inspectors getting together.

Dr. LUBIN. Thanks.

Acting Chairman REECE. Any further questions?

Mr. CHAWNER. General Wood, one of the objectives of this committee has been to attempt, if possible, to discover a way of providing a house at lower cost to the final purchaser, and it has been suggested that possibly with the increase in shop fabrication and central distribution, the sale of completed houses, that that might aid in the lowering of the cost to the final purchaser. I am aware of this, your company has sold certain materials, ready-cut materials, but it would be of interest to know what your judgment was with regard to the possibility of lowering the cost of a completed house by central manufacturing distribution.

General Wood. I think it could be done. I think you have a field in mass construction of a house, just as you have a mass production of automobiles. You can't apply that everywhere, of course, but you have a field for lowering the cost. The whole building problem you have to take in two parts; one is the great cities, and the other is the rest of the country. Now when you get to the country outside of the great cities, when you passed the F. H. A. law and reduced the carrying charges you accomplished a great step in lowering the cost to the small man. Now you take—I saw the computation in England on a \$3,000 house which has to be paid out by the small man in 17 to 18 years; the difference between 8 percent interest and 4 percent amounts to \$1,955 over the period. Now you couldn't possibly reduce materials and labor to get a \$1,955 saving on a \$3,000 house, so when the F. H. A. law was passed and your carrying charges were reduced, you accomplished a great step toward getting houses within reach of the small man.

When I am talking of the small man I am talking of the man with an income of \$20 to \$30 a week, who under our former system had no possible chance of owning his house. Now in the smaller towns and cities of the country in the South, where you don't have these restrictions, where there are relatively few material combinations you can build reasonably today. Your great problem is in the great cities of the country, where you have first exorbitant land costs; second, your union restrictions are bad, and as I say we have had all our work done by union labor and outside of these great cities union labor is reasonable and fair. And you also have an alliance in the great

cities between dealers which hike prices, so your problem of high construction costs is largely in the great cities.

Dr. LUBIN. May I ask one further question? General, it is your opinion that if there were available in the United States building contractors who undertook to build housing in volume, even under existing methods, that the mere volume could lead to rather important cuts in costs for the materials they use? I understand that you yourself have had some experience recently in cutting the cost of certain commodities that go into building of a house, just on the theory that at a given price level these products could be sold in greater volume, and the mere volume itself cut your cost so it was possible to lower those prices?

General WOOD. That is our whole theory of doing business, the same as Ford's. Every time you lower costs you tap another market. Now we had that experience in roofing several years ago. At that time the roofing manufacturers held pretty well together and were all quoting the same price, so we started into manufacturing of roofing, and we have continuously reduced the cost, and we have had a very profitable enterprise, when nobody else in the business was making any money.

Acting Chairman REECE. We thank you very kindly for your testimony, General Wood,

(Whereupon the witness, General Wood, was excused.)

Mr. O'CONNELL. I should like to call a witness for about 5 minutes to introduce a report. I would like to call Wallace H. Walker.

Acting Chairman REECE. Do you solemnly swear that the testimony you will give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. WALKER. I do.

TESTIMONY OF WALLACE WALKER, ASSISTANT GENERAL COUNSEL, HOME OWNERS' LOAN CORPORATION

COSTS OF TITLE EXAMINATION AND INSURANCE

Mr. O'CONNELL. Mr. Walker, will you please state your name and address for the record?

Mr. WALKER. Wallace H. Walker, Washington, D. C.

Mr. O'CONNELL. And you are an assistant general counsel of the Home Owners' Loan Corporation, is that correct?

Mr. WALKER. I am.

Mr. O'CONNELL. Did you within the past few years make a study of the cost of title examination and other legal costs in connection with home mortgage loans, based on the experience of the Home Owners Loan Corporation?

Mr. WALKER. I did.

Mr. O'CONNELL. Would you please tell the committee briefly the circumstances under which this study was made, and the procedure followed in making it?

Mr. WALKER. I was directed by the subcommittee on law and legislation of the Central Housing Committee to make this study, based upon the experience of the Home Owners' Loan Corporation in making loans throughout the United States. Ten States were chosen as the subject of the study. There are four principal systems of title

examination and proof used in the United States, and these 10 States were chosen with the object of getting the greatest possible geographic diversification and at the same time getting the maximum possible representation of the four principal systems of title examination and proof.

Those four systems are, first, the title-company system, where the examination of the title is conducted by a title company which generally insures the title or the lien.

Second, the abstract system, where an abstract of title is made by an abstract company and turned over to an attorney for examination, and the closing of the transaction.

Third, the attorney system where the entire examination of the title and the closing of the transactions conducted by an attorney without the benefit of a title policy or an abstract. And fourth, which is really an off-shoot of the third, is used in the States where land title registration laws are in effect, Torren's Laws, where the attorney conducts the examination of the title but where, the land being registered under the Torren's system, the examination is a much smaller task. Approximately 500 loans for each of these systems in use in each of the 10 States were studied and the results of the study were published in special report No. 3 on Land Title Procedure with Particular Reference to the Legal Costs of Home Mortgage Loans, submitted to the Central Housing Committee by the subcommittee on law and legislation, August 1, 1936.

Dr. LUBIN. Is this a copy of the report to which you have just referred?

Mr. WALKER. That is a copy.

Dr. LUBIN. I should like to offer this report not to be printed but merely to be filed with the committee.

Acting Chairman REECE. It may be admitted.

(The report referred to was marked "Exhibit No. 869" and is on file with the Committee.)

Mr. O'CONNELL. Without going into detail as to what the material is contained in the report, since I believe the report is fairly self-explanatory, have you any general comment you would care to make as to conclusions to be drawn from the report?

Mr. WALKER. The report is summarized on pages 5 and 6 thereof, and in my opinion the conclusions which may fairly be drawn are, first, that the cost of title examination and proof is a deterrent to home ownership, particularly among the lower income groups. For example, we found that with one exception the cost of title examination and proof to the borrower from the Home Owners Loan Corporation was in excess of one monthly installment on his loan. Another conclusion to which I am led is that the land title registration system or Torren's system, as it is popularly called, if adopted in a workable form, will materially decrease the cost of land title examination and proof.

Mr. O'CONNELL. There is no great amount of uniformity in the systems in the various States, is that correct?

Mr. WALKER. There is no great amount of uniformity. It works in three States and one Territory, where the Home Owners Loan Corporation has made loans, and works very successfully.

Mr. O'CONNELL. But is only in use in three or four States?

Mr. WALKER. There are Torren's acts on the books of some 17 States and 1 Territory. It actually works only in the Territory of Hawaii, in Massachusetts, in Minnesota, and in Illinois.

Mr. O'CONNELL. Well, I take it that in general the conclusion might be drawn that uniformity in State laws in this field and that uniformity along the lines of the land registration system would be desirable in the sense that it would cause a reduction in the cost of home ownership?

Mr. WALKER. Yes.

Mr. O'CONNELL. That is all that I have.

Acting CHAIRMAN REECE. Any questions by the committee? If not, we appreciate your appearance.

(Whereupon the witness, Mr. Walker, was excused.)

Mr. O'CONNELL. Mr. Chairman, I have no other witnesses at this time, and if the committee please I would suggest that we adjourn until Monday morning. I had no thought we would meet this afternoon.

Acting Chairman REECE. The committee will stand in recess until 10:30 Monday morning.

(Whereupon the committee recessed at 12:30 noon until 10:30 Monday morning, July 10.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TUESDAY, JULY 11, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:40 a. m., pursuant to adjournment on Friday, July 7, 1939, in the Caucus Room, Senate Office Building, Representative B. Carroll Reece presiding.

Present: Representative Reece (acting chairman), Senator O'Mahoney, Messrs. O'Connell, Lubin, Henderson, and Brackett.

Present also: Messrs. Lowell J. Chawner, Department of Commerce; Willis J. Ballinger, Federal Trade Commission; Ernest Meyers and George Williams, Department of Justice; Ernest Tupper and Miss Grace Knott, Department of Commerce; and Peter A. Stone, coordinator of construction studies for the committee.

Acting Chairman REECE. The committee will come to order, please.

Mr. O'Connell, are you ready to proceed?

Mr. O'CONNELL. I am, Mr. Chairman.

This morning the committee is going to hear about the structure of the construction industry from a man who has been connected with it for some time and who is peculiarly well qualified to discuss this topic this morning—Dr. Willard Thorp, of the Department of Commerce. I think Dr. Thorp has already been sworn in in connection with these proceedings so if it please the committee I would suggest that we just permit Dr. Thorp to proceed and develop the material that he has prepared relative to the construction industry in his own way, and if the committee members have any questions as he proceeds I think Dr. Thorp will be willing to pause and answer them.

Acting Chairman REECE. The committee will be very glad to have you proceed as you like.

TESTIMONY OF DR. WILLARD THORP, DEPARTMENT OF COMMERCE—Resumed

STRUCTURE OF CONSTRUCTION INDUSTRY

Dr. THORP. Mr. Chairman, Dr. Lubin testified that the construction industry itself in 1929 employed 5½ percent of the total gainfully employed nonagricultural workers.¹ When to direct construction are added the materials which it uses, construction accounted for about 15 percent of the commodities produced between 1919 and 1935.

¹ Supra, p. 4942.

The 1938 total volume of construction is estimated at around \$9,000,000,000. I introduce that merely to remind the committee of the tremendous importance of the industry which we are to discuss today.

My share in the presentation is that of description, to present as clearly as I can the meaning of the phrase "the construction industry," with as much light as can be shed on its structure and organization and the economic forces which operate in it.

As a background for understanding and appreciating the processes and problems of the construction industry, I want first to point out what the job is which this industry endeavors to perform.

I am going to state its characteristics, or one might say its complicating factors, in three simple propositions and then elaborate them somewhat. This is, one might say, qualitative discussion. Then I shall move on into certain data which will more exactly describe the various conditions which I shall indicate.

The first thing one has to remember about the construction industry is that it produces a product which is not uniform. That is tremendously important. It is not like most manufacturing industries, where one has a fairly limited variety of products created.

The construction industry has no uniformity in its product. First, as far as type and design are concerned, the construction industry is producing things all the way from subways, factories, and houses, down to screens for the back porch, and down to the repainting and papering of the upstairs room. Moreover, as far as each of these things itself is concerned, there is no uniformity. One subway is different than another subway; one house is different than another house. To some extent, these variations are essential; nothing can be done about them. To a larger degree, however, they are the result of personal desires—one person likes a left-handed sink and another person likes a right-handed sink, and that is a matter of personal preference. So that in terms of the type and design of product, we have to remember that this is an industry which operates on a made-to-order basis, a custom industry rather than an industry which produces a large number of identical products.

The second way in which the product is not uniform is in terms of location. The same thing is never done twice at exactly the same place, and as far as location is concerned the work has to be done at the site. That means that the industry cannot be geographically concentrated but must be scattered over the entire country. Housing, for instance, must scatter very much as population is scattered. About 40 percent of the nonfarm dwellings which were produced in 1937 and 1938 were in cities of over 25,000; about 20 percent were in satellite communities. Perhaps a third of all the houses were in communities of less than 10,000, which means necessarily that the construction industry must operate all over the country, and its product, as far as location is concerned, cannot be uniform.

Then, as to size, I want to emphasize the extreme variety which one finds in the construction industry. Some of our larger construction projects, like the big dams, involve as much as \$100,000,000, the Triborough Bridge, \$44,000,000. At the other end are probably many jobs which involve \$5 or less, where a little painting or a little repairing is done.

All this is to emphasize my first proposition about the character of the construction industry—that its product is not uniform; that there is never an exact duplication; that one cannot, therefore, easily establish a routine which can be followed over and over again.

The second of what I call complicating factors in the construction industry is the fact that its product is not simple. There is a tremendous variety of materials involved in most of these construction enterprises, a large number of different sizes of parts, and of designs. One authority says that the average house requires 30,000 parts. At any rate, we do know that the number of different materials which go into a construction enterprise is very high.

And, of course, it is changing. There are alternative materials. For example, the development of plastics has shown itself at many different points in house construction.

In the same way, there is also a variety of skills which are required in a construction enterprise. As a matter of fact, in the building industry one finds probably more of the old idea of individual workmanship, of skill in the sense of training which the worker must have, than in most other branches of activity. That is shown, for instance, in the subcontracting groups. Five of these broad groups that do about 80 percent of all the subcontracting work, and they indicate roughly the different types of skills. The carpenters, the electrical installers, the heating and plumbing contractors, the painters and paperhangers, and the roofing and sheet-metal contractors—each one of those groups has its own particular skill.

For example, I remember once talking with a carpenter who had tried to operate in a particular city and had been subjected to an examination to qualify, and in the examination they had asked him how one would put shingles around a chimney. He said he hadn't happened to put shingles around a chimney for 20 years and was completely unable to meet that technical requirement in the examination. Thus we have an illustration of the variety of skills which are involved in the different trades in the construction industry.

So that this second proposition, that the product is not simple, carries along with it the conclusion that an important factor in this industry is the factor of organization.

The third complicating factor about the construction industry is that its demand is irregular. That follows in part from the type of product and in part from other characteristics. For example, the demand is essentially local, so that within the country one finds extremely different tendencies.

Just to illustrate that, I should like to compare the first quarter of this year with the first quarter of last year, for some of our leading cities. These comparisons are based on building permit figures for new residences as compiled by the Bureau of Labor Statistics. Comparing the first 3 months of 1939 with the first 3 months of 1938, Baltimore, Boston, and Jacksonville show almost the same level of building activity; Philadelphia, Washington, and Los Angeles have about doubled; Denver and Detroit have about tripled; and Chicago is at about four times the level of a year ago. So that one can see that the influences which operate in this industry are to a large extent local in nature, and there is no degree of uniformity over the country.

I should like to add the point that the demand and the operation of the industry are highly seasonal. Finally, inasmuch as new construction is an addition to a total population of buildings, it is a sort of incremental factor, and therefore can fluctuate very widely without an immediate corresponding fluctuation in the total volume of housing which is available. New construction, in other words, is competing with existing construction from the point of view of the total market situation.

So from the proposition that demand is irregular we can draw the conclusion that this nonrepetitive operation in the construction industry leads to an erratic and uneven flow in its operations.

Now, some things have been done to reduce these complications somewhat. I spoke about the variety of design. A substantial amount of work has been done searching for certain standardized designs of houses which can be used over and over again. The problem of location is being met in some degree by moving the work away from the site to some other point, through the process of prefabrication. For instance, one used to see cement being mixed at the site. Then a mixed cement was produced, a dry-mixed cement, which had to have water added, and now one sees trucks on the streets which carry on the process of mixing as they deliver the cement to the operation. So that to some degree one has seen a shift in location as prefabrication has developed.

Kitchen equipment, for instance, now comes in much larger units ready for installation than used to be the case some years ago. Then there has been some development with regard to eliminating the tremendous variety of materials through standardizing parts. The work of the Bureau of Standards has helped to some extent to reduce the number of varieties. For example, it used to be true that there were 428 sizes of nails and tacks, and now there are somewhere around 185. It used to be true that there were 75 different varieties of common and face brick and with some small exceptions there now are two standard varieties.

So that to some extent the variety has been reduced. Some other types of products have not yielded to this in spite of great efforts. Window frames have not been susceptible of standardization, partly because of the variety in plans as architects develop them and partly because of regional differences in the types of window frames demanded. So that that still remains a product in which there are a great many different sizes and varieties.

I should like to start my testimony with these general propositions concerning the activity of the construction industry:

First, that its product is not uniform as to type, design, location, or size;

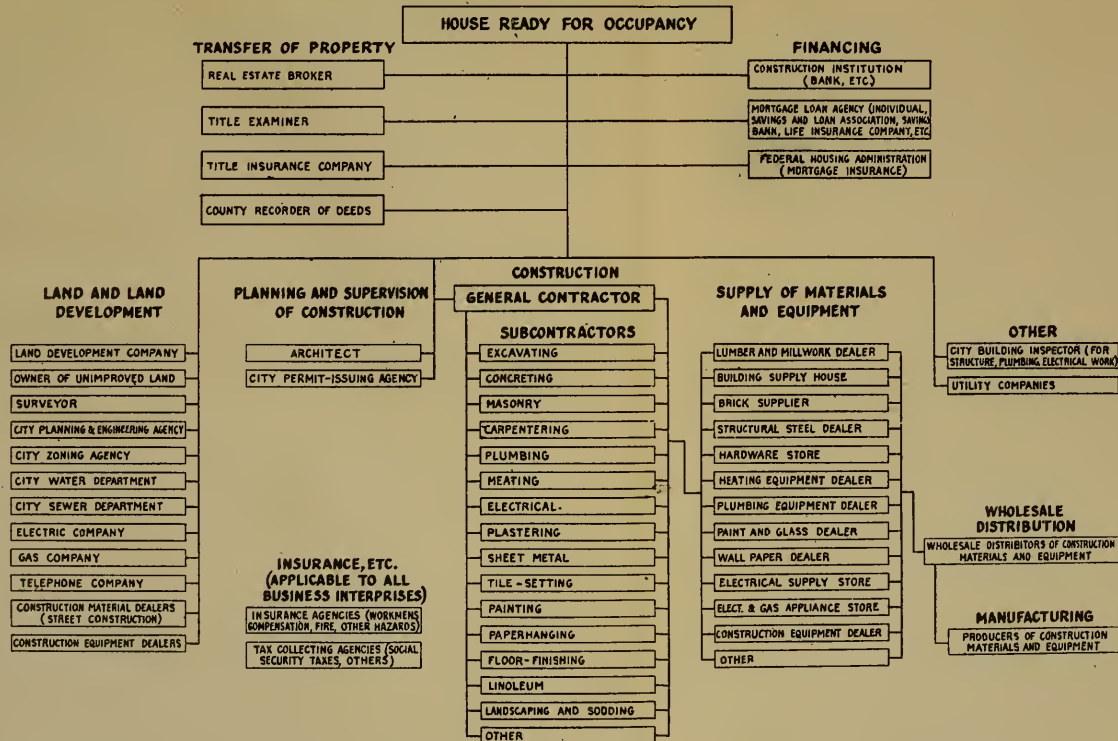
Second, that its product is not simple as to materials or skills;

And, third, that it is an industry having a highly irregular and uneven demand.

Now, I want to put those generalizations into somewhat more specific terms so that these complications are very clear to the committee.

First I should like to present a chart which is a simplified picture of what happens when one tries to build a single-family house in an urban area.

MAJOR PARTICIPANTS IN THE CONSTRUCTION OF A SINGLE-FAMILY HOUSE IN AN URBAN AREA



or what happens when one tries to build a single-family house in an urban area.

You all have copies of this chart. As a matter of fact, if we had put all the complications on it that could be there, I probably couldn't read it even standing as close as this.

Each one of these boxes on the chart indicates some type of specialized person that is apt to be involved when one undertakes the building of a house.

MR. O'CONNELL. Would you mind reading the title of the chart and offering the chart for the record?

DR. THORP. I beg your pardon. This chart is entitled "Major Participants in the Construction of a Single Family House in an Urban Area."

(The chart referred to was marked "Exhibit No. 870" and appears facing p. 5174.)

DR. THORP. If one starts to build a house, he first must contact certain people who are in the real-estate business. That may involve a real-estate broker, title examiner, title-insurance company, recorder of deeds, and so forth. Next, he must contact a financing institution. We haven't tried to develop the complexities which might arise there, but let's assume that he is ready to go ahead and build his house. He has his property and his financing, then he has to arrange with somebody to take over the carrying through of the details. After all, most purchasers of houses are not skilled with regard to the construction industry. It is not something which one does frequently and, therefore, one brings into the picture someone who will act as an expert. It may be the architect who appears here, or it may be a general contractor. Those people in turn have to deal with various types of subcontractors. Perhaps, if it is in a new development, there will be all sorts of people involved in the process of land development, such as the city sewer department, the electric company, the gas company, and so forth. These subcontractors in turn—I won't bother to go through the whole list—have to work back and get their materials through material dealers.

Now, there is no typical design which operates. Some people will use an architect, some won't use an architect; some people will have a general contractor, or perhaps the general contractor will be one of the subcontractors who will work out details with other subcontractors.

Maybe these subcontractors will buy through one or another type of dealer. There is no typical pattern. The thing that I want to emphasize is the number of different individual operators who are involved in the building of a relatively simple construction operation, a single-family house in an urban area.

This picture might be more complicated if the houses were built by a speculative builder, for example. He would then have problems of selling this property, which would bring him into contact with a number of other people. If this were a multifamily dwelling, a large apartment house, it might involve many more detailed subcontractors than are shown here on the chart.

I think it is important also to note that sometimes people omit many of these things. It happens once in a great while that a person may build his house entirely by himself. Certainly some houses will omit electric installation, for example; some other houses may skip having linoleum installed, or wallpaper. However, if one tries to get a picture of the whole, it will look something like this, and I suspect that this is an oversimplified rather than elaborated illustration.

I want to be sure that I make clear this picture of the complexity which faces a person entering into a construction enterprise; so I wish to submit for the record and to discuss for a moment with you the chronological record of contacts made by a home owner and general contractor during the construction of a house.

I wish to offer that for the record and I shall discuss it for a moment.

(The record referred to was marked "Exhibit No. 871" and is included in the appendix on p. 5500.)

Acting Chairman REECE. I may say a very good procedure would be for the Committee to authorize the admittance of the various charts as they are identified and if there is no objection, it will be so ordered.

Dr. THORP. This happens to be the record kept by an individual who had that type of mind, of the detail which he went through in connection with the construction of his house, day by day—the story of what he or the general contractor had to do. The house is described in the record. It is a house costing somewhere in the neighborhood of \$8,000 or \$9,000, and is in the general locality of Washington.

I want to point out one or two interesting types of things that are shown here. First, I should like to point out the number of people contacted in the building of this house just as we run through the record. For instance, starting, say, in April, 1938 [reading from "Exhibit No. 871"]:

General contractor obtained bids from four lumber companies. This involved two or more contacts with each company. General contractor obtained bids from two contractors for the brick and masonry work. General contractor obtained bids from three carpenters. Owner had stock company's architect make small revision and addition to plans. General contractor obtained building permit from county. Surveyor marked off house on lot according to plans. County inspector condemned surveyor's work; claimed house was too close to building line. Surveyor marked off house according to new regulations. General contractor subcontracted excavation of basement.

So it runs on, and there are four or five pages of continuous contacting of new people in order to carry on the work.

I should also like to note that in this kind of procedure purchasing does not seem to be particularly well organized [reading further from "Exhibit No. 871"]:

May 11: General contractor purchased from hardware store 3 kegs of nails for rough lumber work, 1 shovel for laborer, 1 quart of linseed oil, and 1 gallon of paint.

May 19: General contractor purchased 1 gallon of turpentine from hardware store.

May 24: General contractor purchased wood laths and roofing felt from two different dealers.

May 25: General contractor purchased 1 gallon of paint.

May 28: General contractor purchased 20 pounds of finishing nails, 20 pounds of galvanized nails, and 1 roll of tar paper.

June 1: General contractor purchased 50 pounds of roofing nails.

And so forth on through the record.

I should like to point out the degree to which this general contractor has to operate as an employment agency, stepping into this picture almost anywhere [reading further from "Exhibit No. 871"]:

July 2: General contractor engaged two laborers to complete grading the yard about house.

July 6-9: General contractor obtained bids from two painters for interior and exterior painting.

The record includes floor finishers, installers of oil burners, paperhangers, and so forth, in each case someone that the general contractor has to go out and deal with.

I mentioned the difficulty with the surveyor. Here is another little illustration of some of the types of complications that developed. This is from July 25 to 29. It is a little complicated [reading further from "Exhibit No. 871"]:

Paperhanger refused to work while floor finishers were working. Floor finishers had to wait day for paperhanger to finish. Painter couldn't put on final coat of paint in some rooms until floor finishers were through. Plumber was interfering with floor finishers because of the necessity of fixing leaks in radiators in room where floor finishers were working.

So you got the poor contractor tangled up trying to get his work done when each of these various people had to wait for the other to finish.

I think that these two demonstrations, while they are merely single cases, ought to be sufficient to emphasize the point that this is an industry in which we are talking about a very complicated process, a process which already appears to be handled by a number of different specialists who have to be organized in some way or other to carry it through.

So far I have been talking in qualitative terms. Now I want to talk about the construction industry in statistical terms so that you can see more clearly what this amounts to in the national total.

Now, there are some difficulties about doing that. The first difficulty is that we have to make some arbitrary decision as to what we mean by construction and the construction industry. Like all problems of definition, there is nothing that is entirely correct; and, like most problems of definition, there are a number of different definitions which actually are in use at the present time. For example, in the records of the Bureau of Internal Revenue, which I shall present later, ship construction is part of the construction industry, while in the records of the Social Security Board, ship construction is included as a manufacturing rather than a construction industry.

There is no neat pattern. The installation of linoleum is regarded as part of the construction industry, whereas the laying of rugs is not a part of the construction industry. The planting of shrubbery around the yard might be regarded as part of the construction industry, whereas the sowing of grass on the lawn might not. There are many boundary cases that make it rather difficult. Then there is the question of new construction as against repairs. About half of the work done by subcontractors is repairs and maintenance, and half of it is new construction. When we talk about such things as building permits for new construction, we are covering only part of the activity of the construction industry in the United States.

Acting Chairman REECE. The expression "construction industry," if the qualifying term "new" is not used, would include maintenance and repairs, would it not?

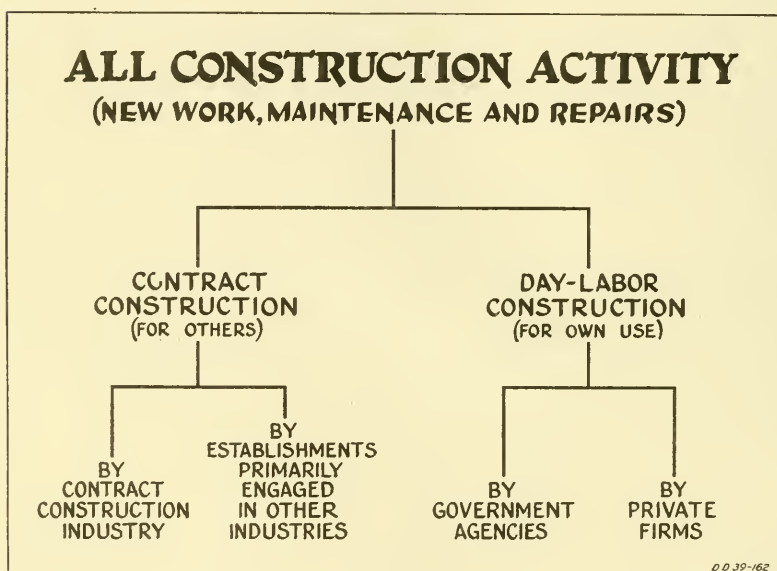
Dr. THORP. That is the customary procedure; yes.

The places where one runs into the greatest difficulty are, for example, in the public-utility industry, where the question arises as to whether the installation of a turbine is or is not a part of the construction.

Conceptually, from the point of view of business organization, there is another reason why this industry is difficult, and that is because many of the parts of it shift in and out. A carpenter, for instance, may work for several months on a job as a journeyman carpenter, and then he may take on a subcontract and himself become a subcontractor, on another enterprise. He is an employee in his first capacity; he is an employer in his second capacity. How one would include him in the picture of the construction industry, whether as an entrepreneur or employee depends on the particular moment at which you are counting him.

We have scattered information with regard to the construction industry and first I should like to put a chart into the record entitled "All Construction Activity," which merely serves to classify and show

EXHIBIT No. 872



for what area of the industry we will have the statistical material. (The chart referred to was marked "Exhibit No. 872" and appears on this page.)

Dr. THORP. The industry is broken down here between the contract construction group, those who undertake construction activity for others, and the construction which is done by people on their own account. For example, many manufacturing enterprises are continually engaged in construction on their own account and use their own employees, and therefore would come under this latter category. The contract construction group is broken down into what might be called the contract construction industry, that which is primarily engaged in construction, and secondly, certain types of contract construction which is done as a side line or as a secondary activity by other enterprises.

It is this contract construction industry for which some statistical material is available. Our main source of information is the census

of construction which was taken in 1935. I have not had that material charted because I don't want to overemphasize it in this picture of the construction industry, because the Census Bureau has never been able to obtain complete coverage in its investigations of the construction industry.

It necessarily has limited itself to enterprises which have establishments with signs over the door indicating that they are engaged in the construction industry, but we all know that a very large part of this industry is carried on by people who have no establishments, who operate from their homes or from their hats or their hip pockets, or however one wants to designate it; and who come in with pencil and paper and make a bid on a job, and who then, if they obtain the bid, proceed to start operations. That whole group has never been covered by the census, and therefore the census information is restricted pretty much to the larger and more permanent operators in the industry.

Dr. LUBIN: Mr. Thorp, in reality these people that you have just mentioned who are not covered by the census are brokers. They are not in a sense constructors—they don't have their own labor force, they don't have their own materials, they don't have their own equipment; all they have, as you say, is a hat or a pocket. They make these bids and once having secured the contract they go out and get subcontractors to do the work, do they not?

Dr. THORP. I think in a good many cases they are the subcontractors and do the work themselves. The type of situation which you describe does happen very frequently, but very often those who are missed by the census are carpenters, for example, who operate some of the time independently and some of the time as employees for someone else.

Dr. LUBIN. But they would be covered if they were subcontractors by the census figures, would they not?

Dr. THORP. Not necessarily. They would be covered if the census found them; if they had establishments which brought them to the attention of the census, but they would not otherwise be covered—that is, the census did not make a door-to-door canvass.

Dr. LUBIN. Is any information available showing the relative percentage of the so-called contractors who are nothing more than brokers as opposed to a contractor who has his own staff and actually is engaged in employing people?

Dr. THORP. There are no figures available except that I shall, in connection with discussing the Social Security data, make a guess which may be far wide, but will be the best that we can do with regard to that.

I should like to offer for the record a table entitled "Contract Construction Industry, Number of Establishments, Work Performed, and Number of Employees by Kind of Business in 1935."

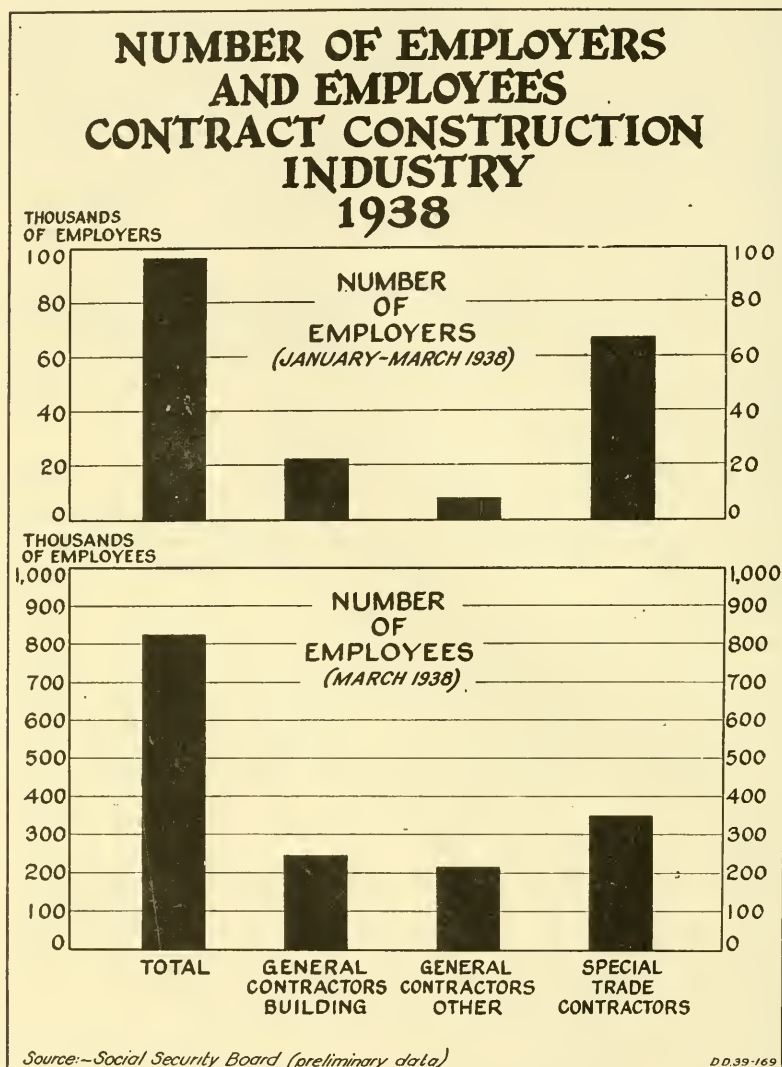
(The table referred to was marked "Exhibit No. 873" and is included in the appendix on p. 5503.)

Dr. THORP. This is the result of the census of which I have been speaking, and covers 75,000 establishments. Of those 75,000 establishments, about 11,000 are general contractors, and 64,000 special trade contractors. A third of those special trade contractors are in the heating and plumbing group.

I have mentioned that this material is limited in coverage. I now want to present some material obtained from the Social Security Board

which will give us a little different picture of the industry. This appears on the chart "Number of Employers and Employees Contract Construction Industry, 1938."

EXHIBIT No. 874



(The chart referred to was marked "Exhibit No. 874" and appears on this page. The statistical data on which this chart is based are included in the appendix on p. 5504.)

Dr. THORP. First we must remember that the records of the Social Security Board include only operators who had employees, so that in this picture we are covering the contract construction industry only to the degree in which it is an employing industry.

These figures are based on records for the first quarter of 1938. The number of employers applies to the period January to March, while the number of employees is as of the last pay-roll period in that quarter. I might point out that obviously this is not the period of the year in which the construction industry is at its largest, and, therefore, if one had annual figures they might appear somewhat different.

This shows nearly 100,000 employers in the construction industry, with over 800,000 employees.

The general contractors in the building end of the construction industry are 22,000 in number, 8,000 in the other types of activity; and the large balance, nearly 67,000, are the special trade contractors.

I said that these were the cases which represent enterprises with employees. The best guess that we can make, based on sample material and the earlier census information, and so forth, is that there should be about another 50,000 added to this of people who operate on their own in the construction industry, but who would not at this time have employees. Quite possibly some of these employers included in the Social Security reports would drop out of the picture and have no employees; at some other date, some of these other individuals would come in with employees. But our best guess is that one should think of the construction industry as having about 150,000 enterprises.

I might say that this material is preliminary and unpublished, and subject to some revision before it can be regarded as final.

Now we can turn to the problem of the size of these enterprises in the construction industry. One can see from this (referring to "Exhibit 874") something about the averages involved in this case. Disregarding the enterprises with no employees, there are something like eight employees to the average enterprise. The average is larger for the general contractors and appreciably smaller for the special trade contractors.

Now, we have this same material from the Social Security Board in terms of a frequency distribution, appearing on this chart, the title of which is "Distribution of Employers and Employees by Size of Business Concern, Contract Construction Industry, 1938."

(The chart referred to was marked "Exhibit No. 875" and appears on p. 5182. The statistical data on which this chart is based are included in the appendix on p. 5504.)

Dr. THORP. Perhaps I might at this time, Mr. Chairman, catch up on myself, because I failed to do one thing which I had intended to do as we went along. At each point where a chart appears, I should like to introduce also into the record the supporting statistical material.

Acting Chairman REECE. That may be done.

Dr. THORP. This chart is based upon the same underlying material as the previous one. The black lines indicate the percentage of enterprises or of employers which employ the various specified number of employees, and the lighter areas represent the percent of all the employees in each group of employers.

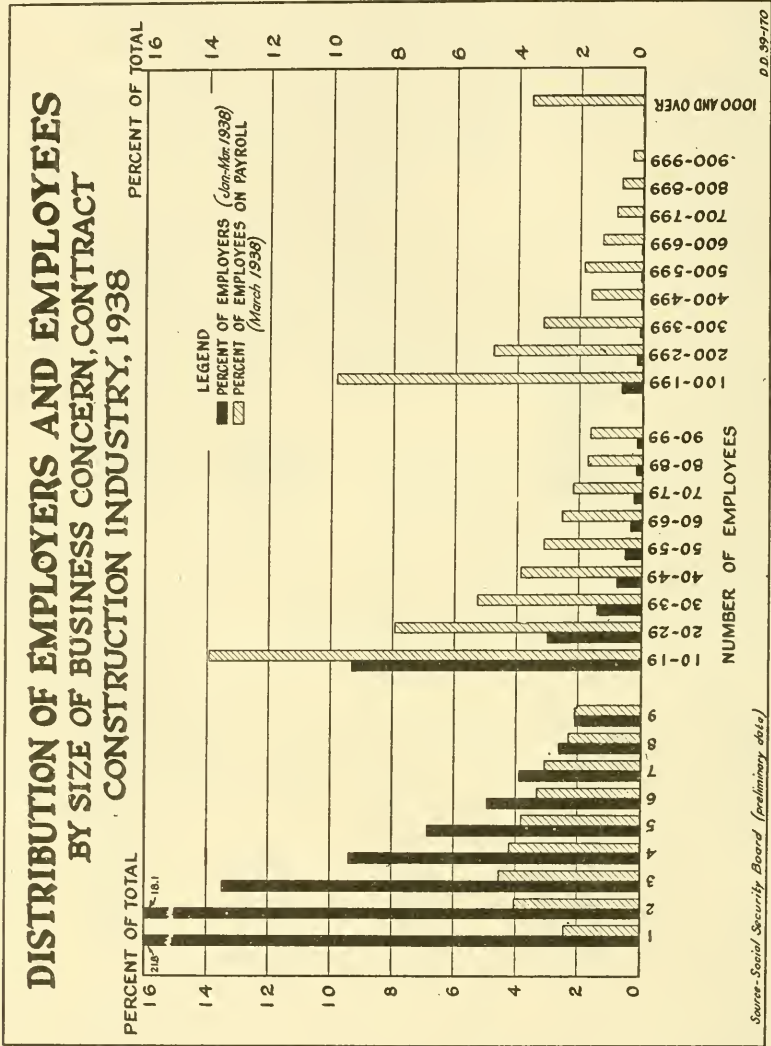
The significant comparison of this chart is with the chart of concentration which I presented in December.¹ I think I can briefly summarize that so that you can get a clearer picture of the construction industry itself.

¹ See "Exhibit No. 56," Hearings, Part I, p. 97.

In the comparison, remember this: The chart for all industry was for the last half of 1937, whereas this is for the first quarter of 1938.

One other difference is that our earlier chart was based on the number of wage items, the number of employees at any time on the pay roll during the previous 6 months' period. This is based on the

EXHIBIT No. 875



exact number at a specified pay-roll time, but with those qualifications in mind, I should like to compare the two groups.

In this particular chart, if we take enterprises with one or two or three employees, that represents 53 percent of all the enterprises. In our general size distribution, 51 percent were in that group, so that they are approximately the same.

The thing that is significant is the fact that in this case, 11 percent of all the employees are employed by these small employers, whereas in our over-all size distribution it was only 4 percent.

That difference becomes clearer if one includes all this block, those with 1 to 9 employees. In our earlier picture of all enterprises, the 1 to 9 group had 76 percent of the enterprises, here it includes 83 percent. In the all-industry it included 11 percent of the employees. In this case nearly a third of the employees are in these smaller enterprises.

Over at the other end is also a significant comparison. For all enterprises, this bar which represented the number of employees in enterprises with a thousand or more went up to 32 percent; in the construction industry it goes up to only 3.6 percent.

One final comparison. If one tried to locate half the employees, one would find half the employees for all industry in enterprises below 250, and the other half in enterprises above 250. In construction that dividing line is between 27 and 28, so that half the employees in construction are in enterprises with 27 or 28 employees.

Mr. HENDERSON. Twenty-seven and twenty-eight, or less.

Dr. THORP. Or less; yes.

The difference between these two sets of evidence makes very clear the fact that we are talking, when we talk of the construction industry, of an industry in which the enterprise in general is a small-scale enterprise, and this includes, of course, not merely housing, but highway contractors, bridge builders, and all branches of the construction industry.

Dr. LUBIN. There is nothing in that chart which would make it clear as to whether or not these employees were construction employees. In other words, it is possible, is it not, that some of these firms employing three, four, or five people may be employing only office people, and as far as affording direct employment to carpenters, plumbers, and so forth, they are not in the picture at all.

Dr. THORP. That would be perfectly true. These concerns are classified according to their major activity, and certainly it would not be true that all these employees should be thought of as employees on the job. They would include all the employees engaged by the enterprise regardless of their type of activity.

Mr. CHAWNER. Is it not true that that would be, particularly the case in this period, in March, when in some types of work no employment at all on the site is possible?

Dr. THORP. Yes; that would be true. I think one needs to keep in mind always the fact that this is the first quarter of the year and in some of the northern sections of the country activity is necessarily at a lower level at that time. I think it is important to realize that that is a fairly local situation, and the coverage is estimated to be between eighty-five and ninety percent of the year's average as of the end of March.

I should like also to present some information concerning the size of construction enterprises, measured in terms of assets. In this case, I have no chart to present to you, and only material with regard to corporations which are engaged in construction activity. This material will appear in a table entitled "Distribution of Construction Corporations by Total Assets, 1936," and is based upon records from the Bureau of Internal Revenue

(The table referred to was marked "Exhibit No. 876" and is included in the appendix on p. 5504.)

Dr. THORP. I have not charted it because it represents necessarily only a small part of the industry. There were 16,645 active corporations classified as being in the construction industry in 1936 by the Bureau of Internal Revenue. That is less than a tenth of the number of construction enterprises.

I shan't take time to discuss the accounting problems involved in any measure in terms of assets. I should like to say this, that the picture that one gets in terms of corporations necessarily over-emphasizes the share of the work done by large enterprises because the omissions are by and large omissions at the small end of the frequency distribution. In spite of that fact it is important to realize that there is no other general industry group which shows as little concentration in large enterprises as the construction industry. That goes for trade, as well as for manufacturing, mining, and other types of activities.

If one takes the case of corporations with less than \$50,000 of assets, for general corporations other than financial companies, about 60 percent fall in this group of below fifty thousand in assets, while in the construction industry about 70 percent are below the \$50,000 level.

On the other hand, if you consider enterprises with over \$5,000,000 of assets, for general corporations other than financial, they have 71 percent of all the assets. In the construction industry they have only 25 percent, and even that is high because the Bureau of Internal Revenue includes shipbuilding and ship repairing in the construction industry, and shipbuilding is a fairly large-scale industry. So that even with shipbuilding included one gets from the assets picture, also, an indication of the fact that construction is a small-scale industry.

I should like briefly to introduce a chart which ties together to some extent this matter of assets and employment. I don't want to spend any time discussing it. This is a chart entitled "Average Inventory Value of Equipment Per Employee in the Contract Construction Industry as of 1929," and it is based upon the census material.

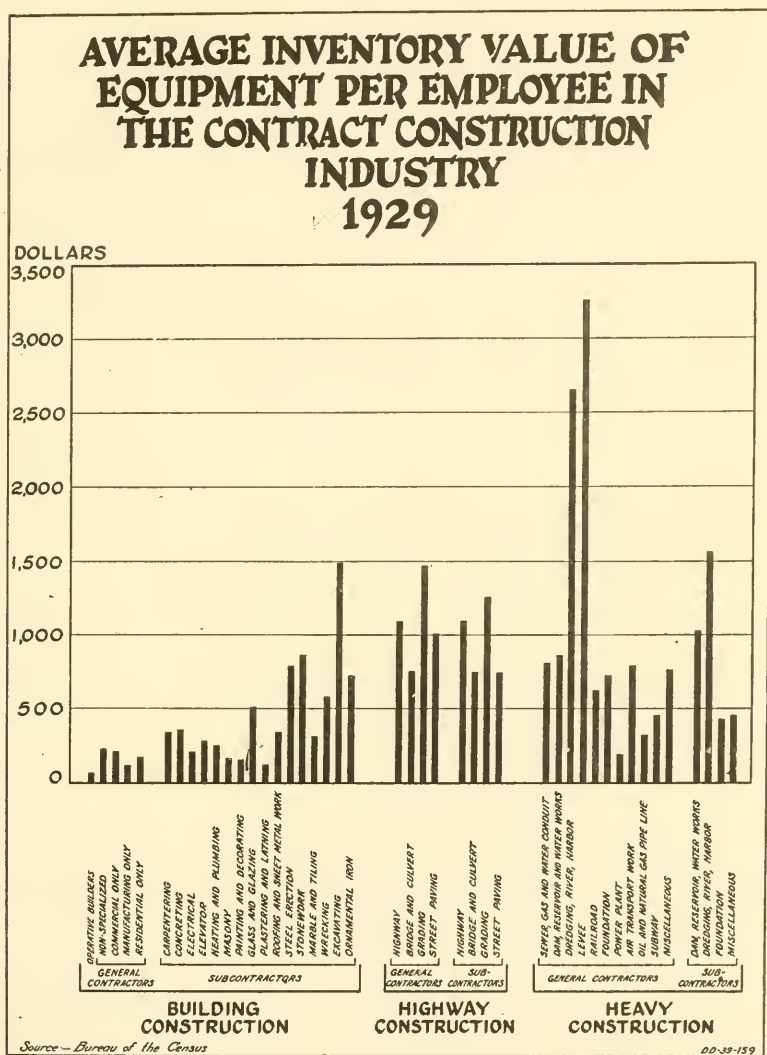
(The chart referred to was marked "Exhibit No. 877" and appears on p. 5185. The statistical data on which this chart is based are included in the appendix on p. 5505.)

Dr. THORP (continuing). The height of the bar represents the amount of equipment required per employee in each one of various types of activity. There are 44 categories given here. Several of them seem to run up fairly far. These cases that stand out well above the line are all cases involving marine work where dredges and such types of equipment are required. Of the 44 categories here, there are only 10 in which a thousand dollars of equipment is required, or is the average per employee. In other words, in an industry with as many small employee enterprises as this one, it is obvious that the capital requirements, from the point of view of equipment at any rate are relatively slight.

Acting Chairman REECE. If you don't mind being interrupted, in some sections the building supply companies construct houses. That is, the company will have an architect, or at least someone who is a draftsman and sufficiently skilled to draw up the plans for a house. There is no one intervening between the building supply man and the

owner of the house, and according to my observations, that accounts for a very considerable part of the building in the smaller cities. I am wondering just how that type of construction comes into the data which you have assembled.

EXHIBIT No. 877



Dr. THORP. It is very difficult to answer that question. I can merely say this, that the Census Bureau tries to sort out these types of activities and include them according to which is major and which is minor. One of the difficulties which I shall not be able to meet when I discuss the supply situation is the fact that the suppliers and

dealers are so often engaged in work at the site. Our contractors also are frequently manufacturers in the sense that they may saw lumber and do things of that sort. The possibility of sorting out these various parts in the industry is very slight. In the size figures, the activity would be classified as construction only if that were the major activity. If a concern's major activity was retailing or selling to other contractors, then it would appear in the distribution group.

Acting Chairman REECE. In the smaller cities the building-supply man occupies, it seems to me, an entirely different position than he does in the large cities, and performs quite a different service.

Dr. THORP. There is an appreciable difference according to the kind of building supply that you are talking about. Lumber yards are less apt to be engaged in construction work than plumbing-supply people where the plumber may also act as a supply dealer.

In getting at this picture of the kind of work that goes on at the site I should like to introduce a chart which shows the location of work performed. This chart is entitled "Distribution of Work Performed, by Location, Contract Construction Industry, 1935."

(The chart referred to was marked "Exhibit No. 878" and appears on p. 5187. The statistical data on which this chart is based are included in the appendix on p. 5506.)

Dr. THORP. This chart indicates how much of the work done by various types of operators is done in the home city, how much is done in the home State outside the home city, and how much is done outside the home State. It is interesting to note that among the general contractors, two-thirds of the building operators are in the home city. Heavy construction is more scattered. Highway construction, while most of it is done within the State, also has a great deal done outside of the home city because that is where highways are.

When one comes to the special trade contractors, the picture is much more emphatic in terms of operating within the home city. As one gets down to the heavier types of activity, however—stone setting, steel erection, excavating and foundations, and the "all other" group, which includes such things as elevator installations, wrecking, ornamental iron works, and so forth—one finds that there is more work done outside the home city.

But again, considering the number of cities in the country, this is a further indication of the fact that the construction industry, in operating at the site, tends to be small scale and tends to be a locally operating industry.

Mr. O'CONNELL. Dr. Thorp, I am informed you have been remiss about submitting tables to support the last several charts. Are they all in the record?

(The clerk indicated the tables were in the record.)

Dr. THORP. I should like to make a few observations if I may with regard to the significance of an industry whose organization is of the type which I have been describing. I have tried to show some of the reasons why one can explain the character of this industry, the diversified type of task which it has. Its organization is an organization of many small specialized units, not focusing so much on the final product as focusing on the part which each unit has to do.

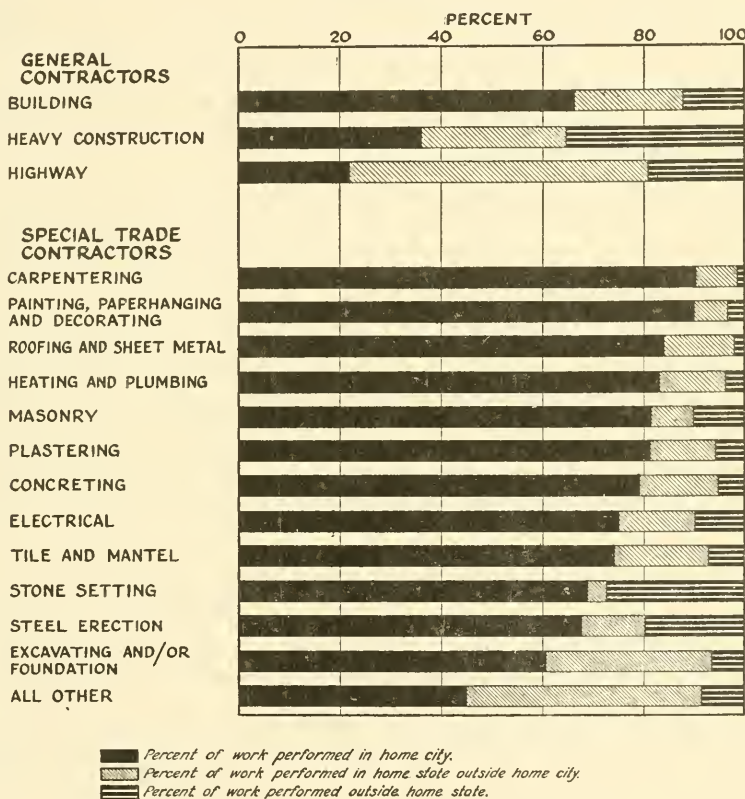
Now, in comparison with other industries, this situation leads to certain obvious costs which I should like to point out. First is the difficulty of organizing and planning an efficient work program on the

part of the enterprise. The many parts which have to be brought together are brought together in varying ways, in varying places, on various types of operation, and it becomes a major problem of organization to bring this about in any efficient way.

EXHIBIT No. 878

5

DISTRIBUTION OF WORK PERFORMED, BY LOCATION, CONTRACT CON- STRUCTION INDUSTRY, 1935



Source:— Bureau of the Census

DO-39-160

Secondly, a characteristic of the industry is expensive purchasing—purchasing in small lots. I indicated in the illustration which I gave the buying of 1 gallon of paint—that sort of thing. This small-lot purchasing is a result of a small-scale industry.

It is expensive in its purchasing practices, it is expensive in its selling practices. Because the selling practices essentially are through

the process of bidding, the result is that in connection with building one house there may be a hundred bids which are prepared by various people who wish to participate in that activity, although there may be, let's say, only 10 contracts which are finally awarded. So it is necessary for all the people who would like to participate in this enterprise to work out a tailor-made estimate for a particular job, and necessarily that involves an expensive form of selling their services.

It makes for an uneven flow of work and employment. With as many small enterprises as these, and as many projects, the evenness which can come from averages is not present. It is a continual up-and-down effort to find new work and necessarily even within the locality there is great unevenness as the result of this type of organization.

With so many small enterprises there are always questions of inadequate and unstable financing. With so many small enterprises it is not surprising that there is virtually no research carried on by the construction industry in itself, and a resistance to new methods and materials because of the fact that the members of the industry are not active in the technical and engineering front.

Over all, it is an industry where there is no basic responsibility, no one person. It is an industry in which there are a great many people concerned, and therefore not one which is concerning itself with the over-all developments of construction.

Acting Chairman REECE. To what extent do the manufacturers assume some responsibility for research in their respective lines and bring into the factory representatives of the building supply people or the smaller contractors, and in that way keep them abreast more or less with the developments?

Dr. THORP. That is the point, Mr. Congressman, where research is done in the industry, but I have been talking so far about the construction industry in terms of that which happens at the site; those who are actually engaged in the building of structures, dams, bridges, highways, and so forth. I am going to move a little later into the supply area, and then finally back into the building materials area, but the construction industry itself, as I have been discussing it here, is the direct construction industry, and the direct construction industry itself has, I think, a very limited record as far as its research work is concerned.

Mr. CHAWNER. Dr. Thorp, isn't it true that the question the chairman raises with regard to research is different in different sorts of items that go into a house? For example, in electrical and heating and plumbing facilities, the manufacturers have developed approved units by research, but in the structure itself, which has to be prepared on the site, handicraft methods still more or less prevail. There is a conspicuous difference between the various parts of a house as regards the amount of research which has been put into it because of the fact that it has been possible in one case for the manufacturer to develop completed units and in the other case it has not been possible.

Dr. THORP. Yes; I think that would be a fair generalization.

These comments I have been making are general comments from the broad economic point of view. I should like also to point out what this type of industry means for the individual businessman who is engaged in it. In an industry where there are as many small units as this, and such a movement in and out of the industry, the natural tendency would be for there to be a very disorderly and bitter com-

petition. It is hard to see how this industry could operate with cost controls because cost experiences would mean very little when carried from one job to another. Furthermore, in many of these enterprises the proprietor is himself a major part of the labor force and that permits some fluctuation in his estimates of costs.

I haven't emphasized the fact that much of the industry is carried on on a speculative basis. There are no satisfactory figures on that, but somewhere between a third and a half of all one-family residential building is done for sale or rent, and that is mostly for sale. That means that a very considerable part is what is usually thought of as speculative building, which adds a financing pressure to the processes of the industry.

Now, in this sort of situation where one might expect this disorderly and bitter competition, it is not surprising, therefore, that the members of the industry should seek to protect themselves from that type of economic pressure. They seek protection first against other contractors, for example, who may perform the same sort of thing as they; and secondly, where they are specialists they seek protection against substitute materials and substitute skills which may reduce their market. So that, as an actual consequence of the organization of the industry, one finds, as results of this search for protection, agreements, collusions, price controls, the use of building codes, union restrictions, such things as bring into the picture what, from the point of view of the business entrepreneur, might be described as order, but which I should prefer to describe as protection.

I should like to add one other point about this type of industry. Being an industry in which the whole is made up of many parts, a price reduction by any one part is not significant in terms of its effect upon the total. Therefore the tendency is for any one part to try to hold up the rest of the industry for its own advantage, and that is the way in which its own advantage will appear. This is an industry in which the demand is a demand for a composite product, in which a great many of these parts have participated, and therefore one can find no one part responsible. The whole tendency in terms of its effect on prices is for each part to find that its profit lies in increasing its own charges on the industry rather than in reducing them, because a reduction will have such a small effect upon the total demand.

Now, I should like to move to a discussion of the suppliers and dealers from whom these contractors get their materials. This is particularly difficult to discuss because it is not a clear-cut group. Very often one will find a given enterprise not only operating as a contractor on the job, but as a supplier of materials, and, in fact, as a manufacturer. A lumberyard, for instance, may act as a sub-contractor at times. It may act as a retailer or as a wholesaler, and it may also operate a planing mill and to that extent be a manufacturer. So it is very difficult to find any precise definition of the people that are in this intermediary group.

I might add also that the distribution problem has become more difficult because many building materials are now distributed through general stores. A 5-and-10-cent store, for example, will sell certain of the lesser building materials, and department stores and mail-order houses, and various other general types of stores are engaged in distributing building materials.

I wish to put in the record the evidence which has been collected by the census with regard to retail dealers, in the table entitled "Retail Dealers in Lumber, Building Materials, and Hardware."

(The table referred to was marked "Exhibit No. 879" and is included in the appendix on p. 5506.)

Dr. THORP. According to this census report, which covers the year 1935, there are 73,000 stores falling in this general category. The table which I shall introduce gives a break-down by size of store. As a general overall comparison, I might say that all stores in the United States average about \$20,000 a year sales. These in this building materials group average \$26,000 a year sales. There are more large stores in the building materials group than in the general-store group. When one gets to the retailing picture, one begins to find more in the way of size, than in the work at the site picture.

As far as wholesalers are concerned, I might repeat the difficulty that one faces in definition. For example, one of the most difficult problems of definition which the N. R. A. faced was to decide what was a wholesale lumberyard and what was a retail lumberyard. The census has classified slightly over 11,000 establishments as being wholesale distributors of construction materials, and I should like to introduce for the record, tables from the census giving the picture of wholesale distributors of construction materials.

(The table referred to was marked "Exhibit No. 880" and is included in the appendix on p. 5507.)

Dr. THORP. And a second one giving a break-down by size.

(The table referred to was marked "Exhibit No. 881" and is included in the appendix p. 5508.)

Dr. THORP. This break-down by size shows that in the wholesale group, there are a considerable number of relatively large establishments, some of them with sales exceeding \$1,000,000 a year.

One thing perhaps should be emphasized about these suppliers and dealers in building materials. I have mentioned size in terms of sales. It also should be noted that in general they have to carry rather heavy inventories, so that if one measures size in terms of inventories, they are even larger as compared with the ordinary retail or wholesale enterprise. For all retailing the turnover in the United States is something like eight times a year. For building materials the turnover is about three and a half times a year, so that they have to carry more than twice as much inventory per dollar of sales as is customary in most distribution.

So much for the number and size of enterprises in the field of distribution of building materials. I have not felt that it was important to take more time on it. But I do want to indicate now and discuss briefly the problem of competing channels of distribution, because even these statistical tables tend to over-emphasize the proposition that there is a clear-cut retailer or clear-cut wholesaler group. I should like therefore to present a group of charts which show the channels of distribution through which building materials flow. The first chart is entitled "Sales Distribution of Wholesalers in Selected Kinds of Business, 1935."

(The chart referred to was marked "Exhibit No. 882" and appears on p. 5191. The statistical data on which this chart is based are included in the appendix on p. 5508.)

Dr. THORPE. The black portion of the bar indicates the sales by these wholesalers to contractors or to consumers. The next section

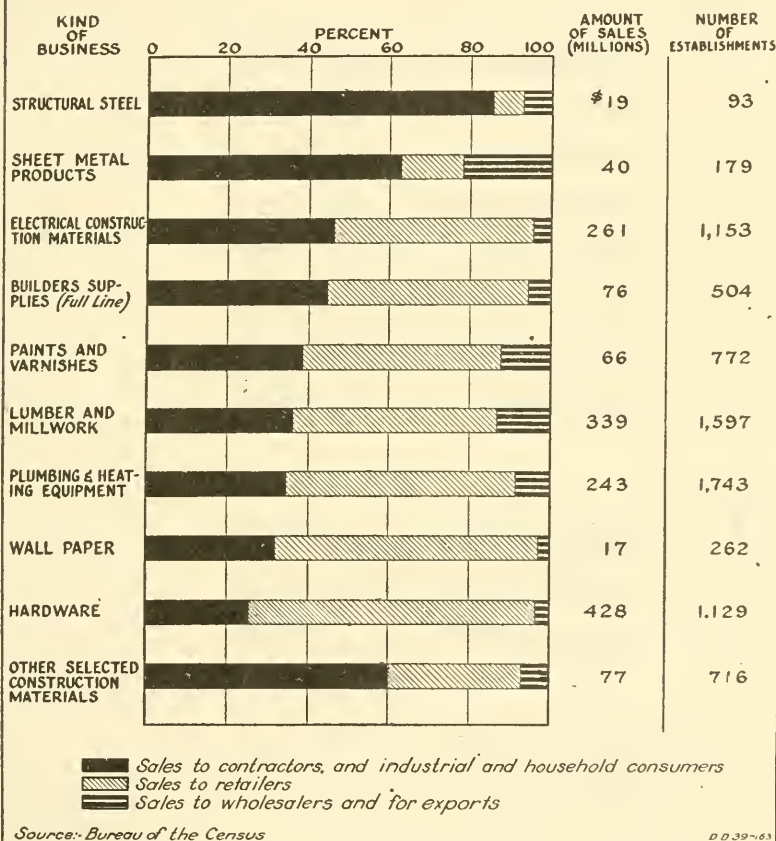
in the bar, the shaded portion, indicates sales to retailers, and the last smaller section represents sales back to other wholesalers or for export.

These census records are the best records that we have, although there has always been some question as to whether the manufac-

EXHIBIT No. 882

7

SALES DISTRIBUTION OF WHOLE- SALEERS IN SELECTED KINDS OF BUSINESS 1935

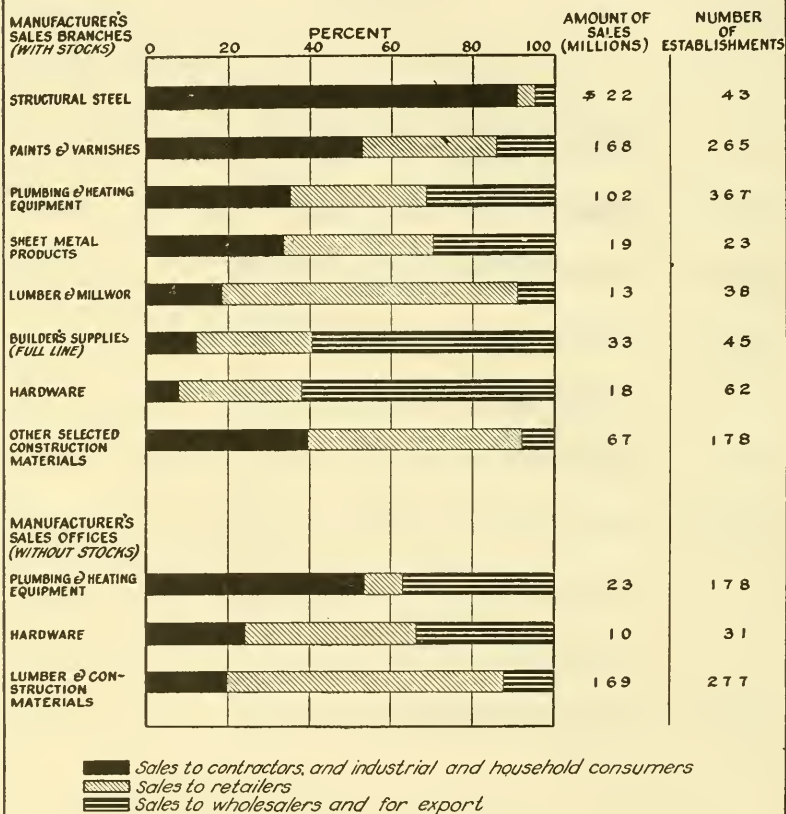


turers themselves had records in this form and whether or not the census was exactly accurate. Despite their limitations, I think it is important to note that these records show that a considerable part of the flow does not go through retailers at all, but directly to contractors. This varies according to the nature of the product.

When one gets into the lighter products, such as wallpaper and hardware and paint and varnish, for example, the tendency is for it to flow through a retailer as well as a wholesaler. When one gets into

EXHIBIT No. 883

SALES DISTRIBUTION OF MANUFACTURER'S WHOLESALE BRANCHES IN SELECTED KINDS OF BUSINESS 1935



Source: Bureau of the Census

DD-39-165

the heavier things such as structural steel, it is much more apt to go directly to the job, as one might expect.

Now we carry that one step further to a chart which shows sales distribution of manufacturers' wholesale branches in selected kinds of industry.

(The chart referred to was marked "Exhibit No. 883" and appears on p. 5192. The statistical data on which this chart is based are included in the appendix on p. 5509.)

Dr. THORP. These are cases where the manufacturer himself has a wholesale branch. The picture is very much the same with the exception that there is a tendency for his wholesale branch to do less direct selling. His wholesale branch is much more likely to sell to a retailer or back to another wholesaler. The black bars in general are less sizable than they were on the earlier chart.

There is one more chart with regard to this problem of distribution which relates to the manufacturers' own sales. This chart is entitled "Sales Distribution of Manufacturers in Selected Industries, 1935."

(The chart referred to was marked "Exhibit No. 884" and appears on p. 5194. The statistical data on which this chart is based are included in the appendix on p. 5509.)

Dr. THORP. In this chart again we have the black showing the sales to industrial and household consumers, and to contractors, sales which do not go into the hands of dealers. Then sales to retailers, sales to their own wholesale branches, and sales to wholesalers and jobbers. I think one of the most interesting cases on this chart is the case of wallpaper in which, as far as the census records go, you will find that all sales by manufacturers are either sales to retailers or sales to wholesalers. There are no sales in that case either to consumers or to contractors.

Roofing presents very nearly the same picture. When one gets into the heavier things such as concrete products, structural and ornamental metal work, one finds that the sales are made very frequently directly to the consumer or to the contractor.

I should like to emphasize the fact that these channels are very important for a certain number of business people. To the wholesaler it is most disturbing if a manufacturer undertakes to sell directly to contractors. The same is true for the retailer. Naturally it is the interest of each person in this flow of goods to preserve his own position.

In the intermediary group of suppliers and dealers I should like to emphasize that very frequently they are identified in their interest either with contractors or with manufacturers. In many cases they are identical persons. For example, the contractor may also be a dealer in some product, and obviously he is concerned about preserving his position both as contractor and dealer, or in having his product maintain its position in the market as against some other.

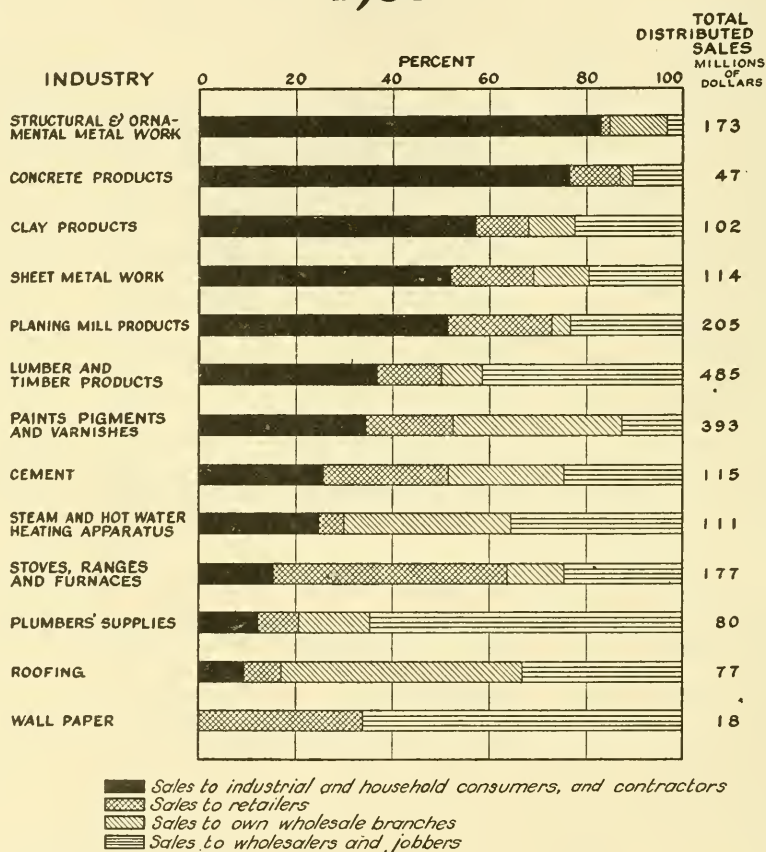
To take a special case, a plasterer subcontractor necessarily is concerned in seeing that every building has as much plastering work in it as possible. He is naturally eager to see that people use plaster rather than wallboard or paneling or other wall materials. He may work with a dealer in plaster. There may also be a wholesaler as active in the plaster field. The ordinary intermediary, however, might not himself be much concerned as to whether he sells plaster or wallboard.

At the other end, the manufacturer also is interested in having plaster go into the job. So that upon this supplier pressures are exerted by the contracting group and by the manufacturing group, both of whom are eager to have his assistance in maintaining the use of this particular type of material. That assistance, as in the effort

of the contractor to preserve himself, may make itself felt in building codes, in union restrictions, in exclusive dealing agreements with manufacturers, in price agreements, and many others which could be noted.

EXHIBIT No. 884

SALES DISTRIBUTION OF MANUFACTURERS IN SELECTED INDUSTRIES 1935



Source: Bureau of the Census

D.D.39-164

I should like to emphasize, therefore, that this intermediary or supplying group has a passive position in that it is not concerned as to whether it handles plaster or wallboard as such. But members of the group are often forced by the more direct interest of the people in front of them and behind them to take an active position with regard to the kind of material that shall be used.

The intermediary group, however, does have an interest in the preservation of its own position. For example, a wholesaler is necessarily very much concerned to make sure that goods flow through his hands rather than go directly from the manufacturer to the contractor. The same thing is true with regard to the dealers. So, as another very active type of force which operates in this industry, we have the effort on the part of these intermediaries to preserve their own position in the channel of distribution. From that point of view, they are no different than intermediaries elsewhere. Wholesalers and retailers in general take this same attitude. This is not surprising. But in the case of building materials, it is emphasized and exaggerated by the pressures which come from the people to whom they sell and the people from whom they buy.

There is one other phase of distribution which I should just like to mention and on which I should like to introduce a table. That is the phase of transportation, because it is important to realize that, in the total operations of the construction industry, transportation plays a very important part. That is necessarily so for two reasons: One, the actual operations are carried on over a wide geographical area and most of the materials must be brought to the site; and two, building materials are usually very heavy, and necessarily have a heavy freight burden.

I present for the record some material from the Interstate Commerce Commission in a table entitled "Estimates of Freight Revenue and Value of Commodities Transported, Class I Steam Railways, 1936."

(The table referred to was marked "Exhibit No. 885" and is included in the appendix on p. 5510.)

Dr. THORP. These estimates are based on carload traffic and the figures here are for a small number of commodities.

This, of course, is only for the part of the commodity which moved in freight, but it is interesting to note that for gravel and sand—and 40,000,000 of tons of gravel and sand moved in freight in 1936—the freight absorbed 57 percent of the value at the destination. Gravel and sand had the highest percentage. Next comes plaster with 33 percent of the value at destination absorbed by freight revenue. Cement is 24 percent; common brick 28 percent. At the other extreme, we have iron and steel pipe and fittings 8 percent, and paint only 4 percent. The average for all commodities, not just building materials but all commodities, is about 8½ percent. So that when one cites such figures as 28 and 33 and 57 percent, it is obvious that the transportation cost is itself a very heavy part of the cost and also tends to bring about geographical decentralization of the production of the material. So that for these products with heavy freight, as far as possible the industry has tended to decentralize.

Mr. HENDERSON. In that whole group, Dr. Thorp, the only industry which would have an interest in the transportation industry itself is the steel industry; isn't that true? That is, there are certain of the railroads which are owned in whole or in part by steel companies. That isn't true of the others, is it, so far as you know?

Dr. THORP. There may be a few cases where lumber is interested, but I am afraid I can't do any more than just suggest that possibility. In most cases what you say is quite correct. As it happens, the heavy

freight-paying groups are the parts of the building materials industry which are small scale.

Acting Chairman REECE. Doctor, you made reference to the effort which the retailers and the wholesalers had made to retain their position in the distributing system. I am wondering if you intended to infer that the retailer and wholesaler had ceased to become a desirable factor in our distributing system, and my question is not prompted altogether by the statement that you made but also by a statement which one or two other witnesses appearing before the committee had made, and I am wondering if you feel that the distributing system has been so perfected now that the wholesalers and retailers have ceased to perform a useful function in it.

Dr. THORP. I think I could give a brief answer to that along these lines: That there are certain things which must be done which we can describe as wholesaling and retailing functions. Someone has to do those jobs. The question of who should do them is a matter which has been undergoing considerable change in recent years. The manufacturers are doing much more direct selling and retailers are doing much more direct buying than was the case 20 years ago.

If there was in my comment any judgment at all, it was merely a judgment that it seems to me such matters ought to be allowed to develop according to the efficiency, the cost, and the normal and more proper economic forces rather than by trying to control them through some planned arrangement—a planned arrangement either set up by the interested group, or in some cases by a State or Federal law.

I think certain developments have been going on and the issue is not a question as to whether these functions should be performed, but rather how should the decision be made as to who should perform them.

Now, I come to a general discussion of building materials. I shall have to break that discussion in two parts because I have a rather long series of material to present; but perhaps I can get started and we can pick it up again after lunch without too much difficulty.

When one talks about building materials, one runs into a number of difficulties. The main one, of course, is that there are very few materials which are solely building materials. They are used for various other purposes so that we have to remember that when we are talking about building materials, it may well be that only a part goes into the construction industry.

In general, this can be said about the building materials industries: There seem to be two general types of situations. One is the case where the industry has developed on a local basis, sand and gravel, for example; and there are a great many of these small-scale units scattered around the country. The other group is engaged more in the fabricating and the mining and metal products industries, where we find operations on a relatively large scale.

I want to start this discussion by presenting some maps which can indicate more quickly than I can tell the differences in these various building material industries. These maps indicate the counties in which the specified products were produced in 1935. Perhaps we might start with a comparison of hardware and planing-mill products.

(The maps referred to were marked "Exhibits Nos. 886 and 887" and appear on pp. 5197 and 5198.)

EXHIBIT No. 886

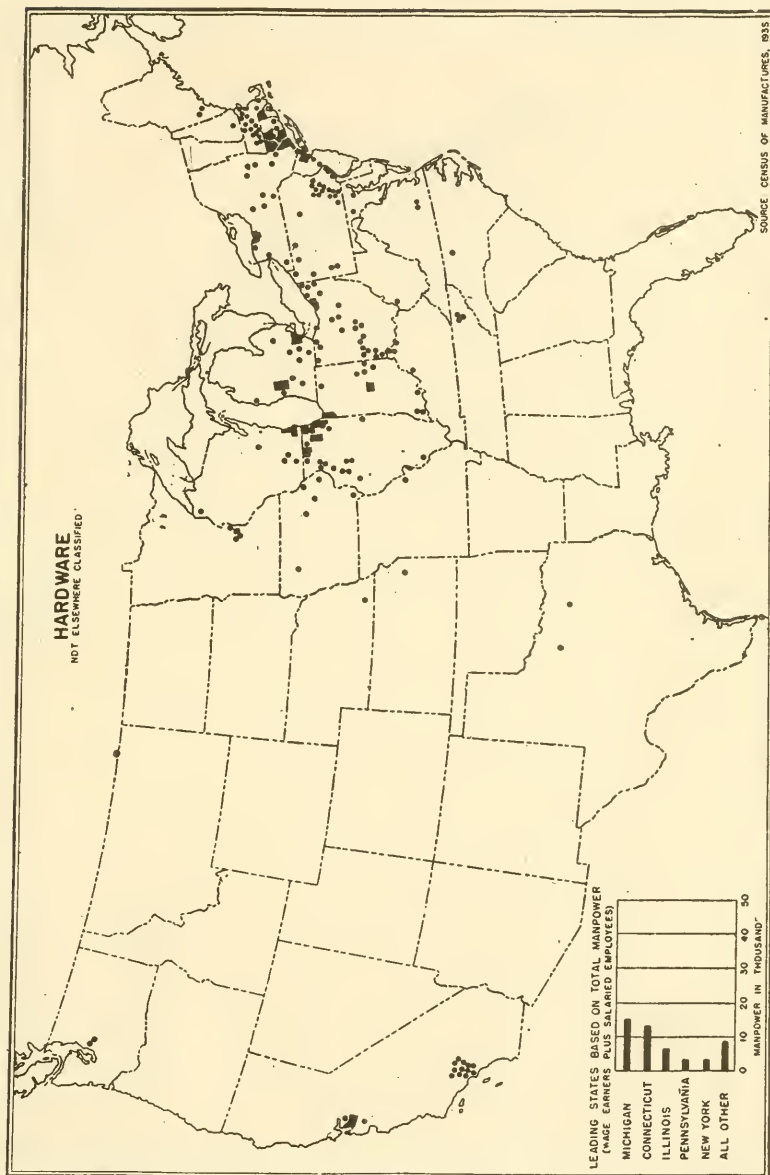


EXHIBIT No. 887

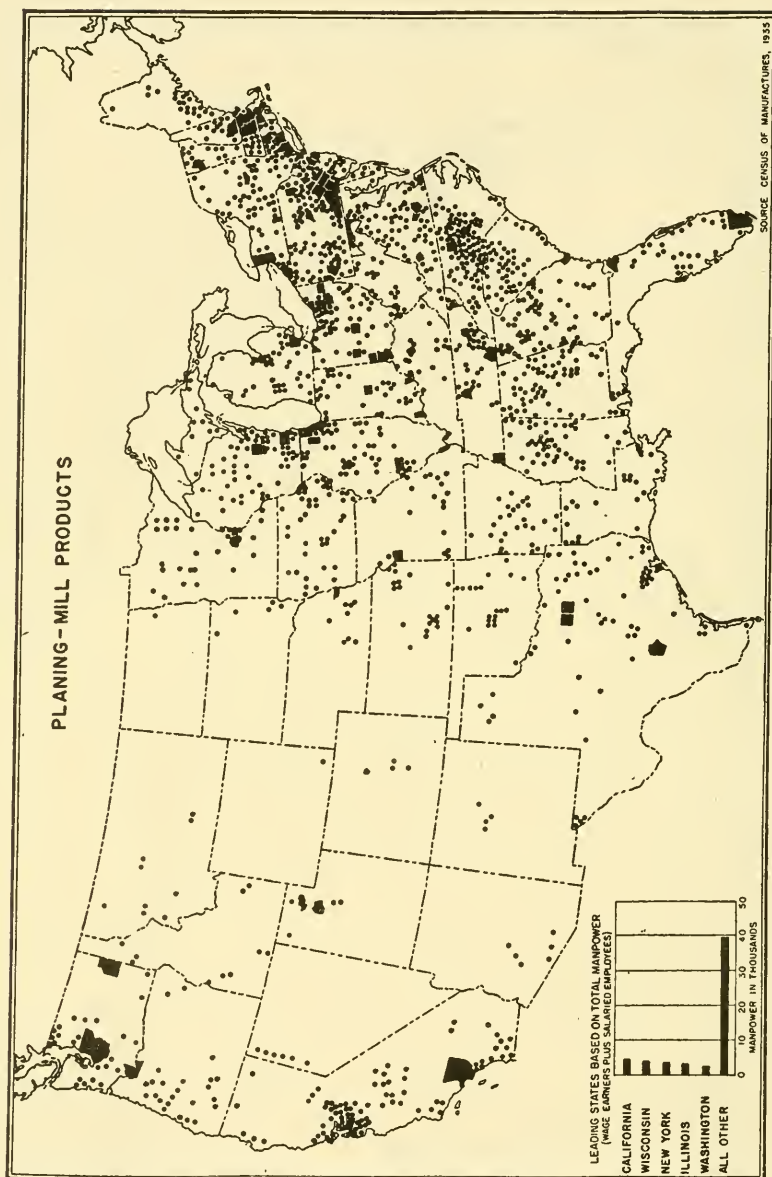


EXHIBIT No. 888

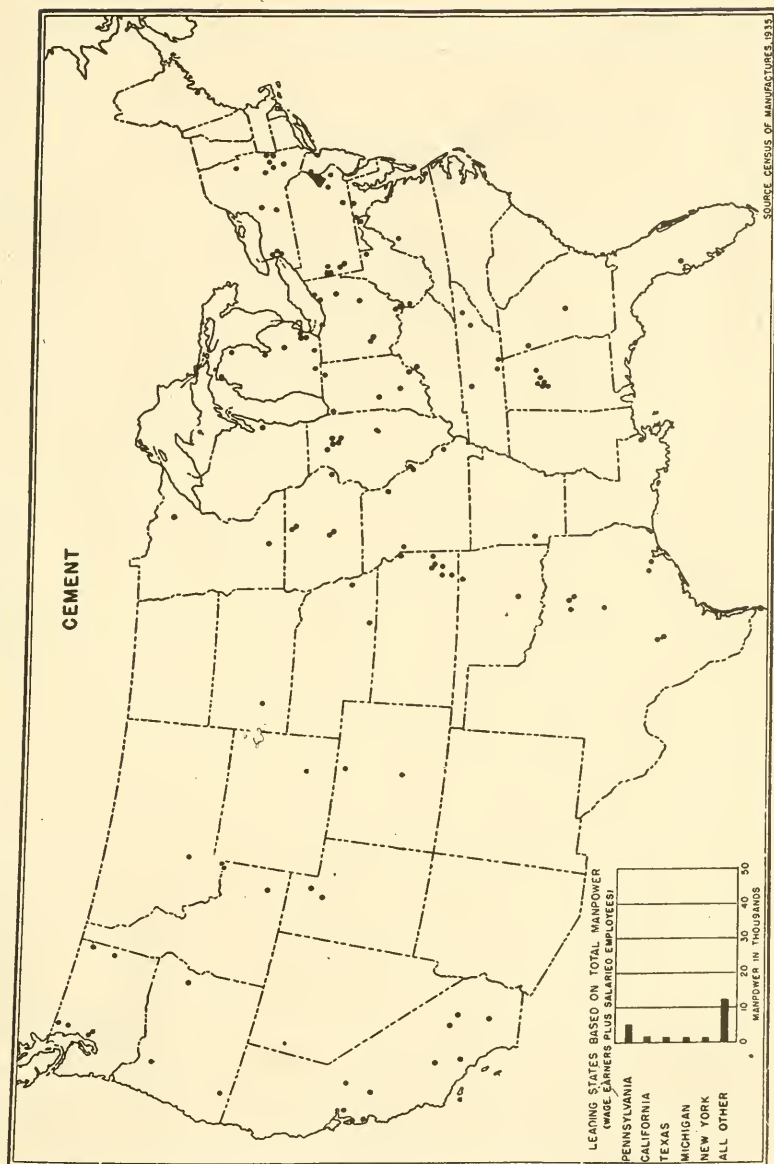


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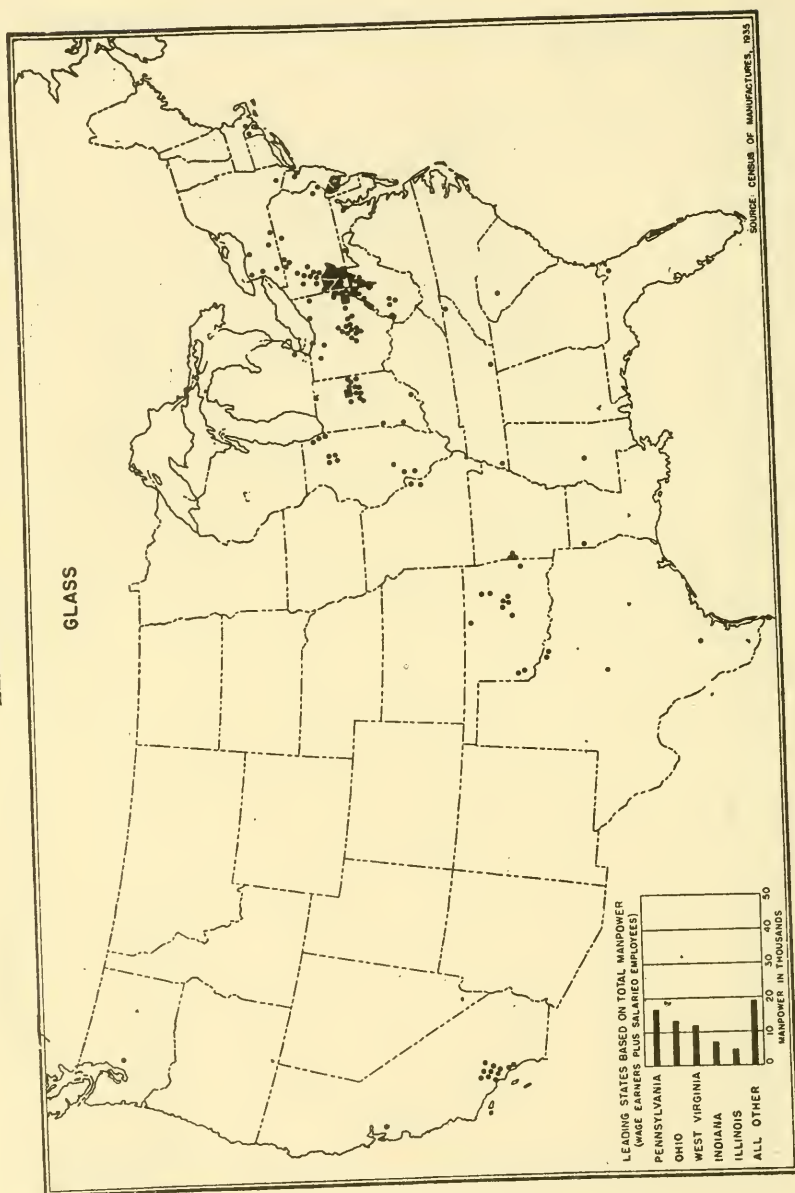


EXHIBIT No. 890

SHEET-METAL WORK

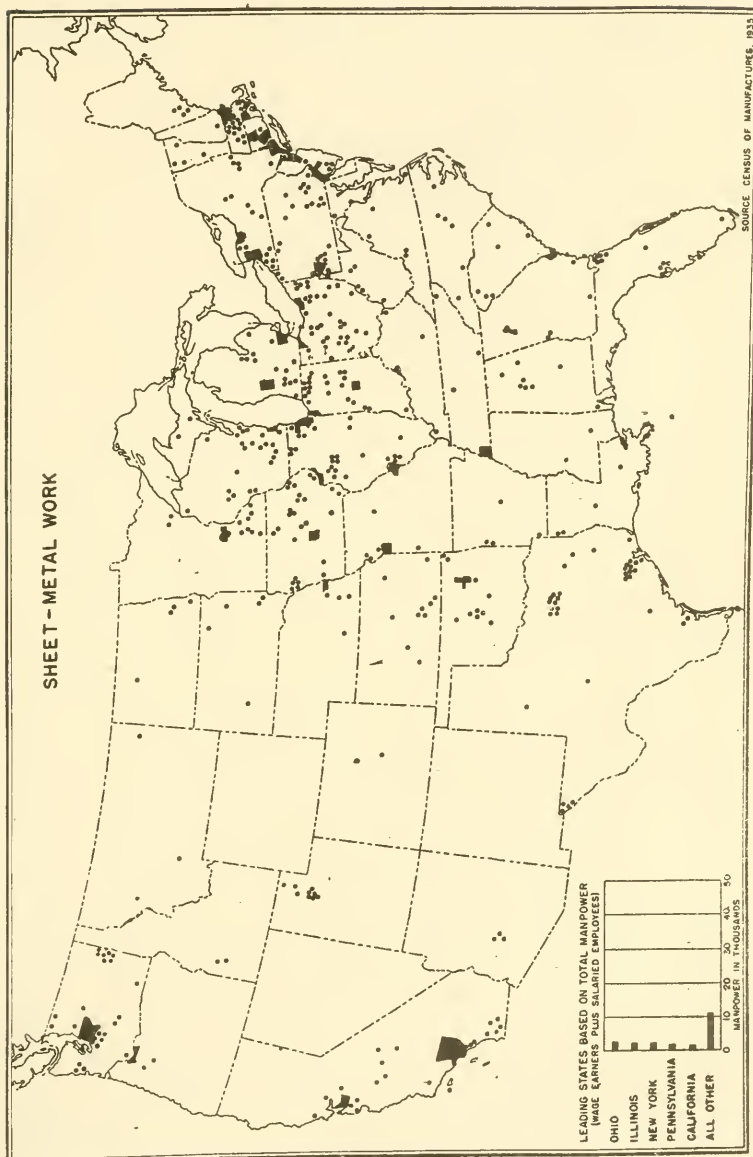
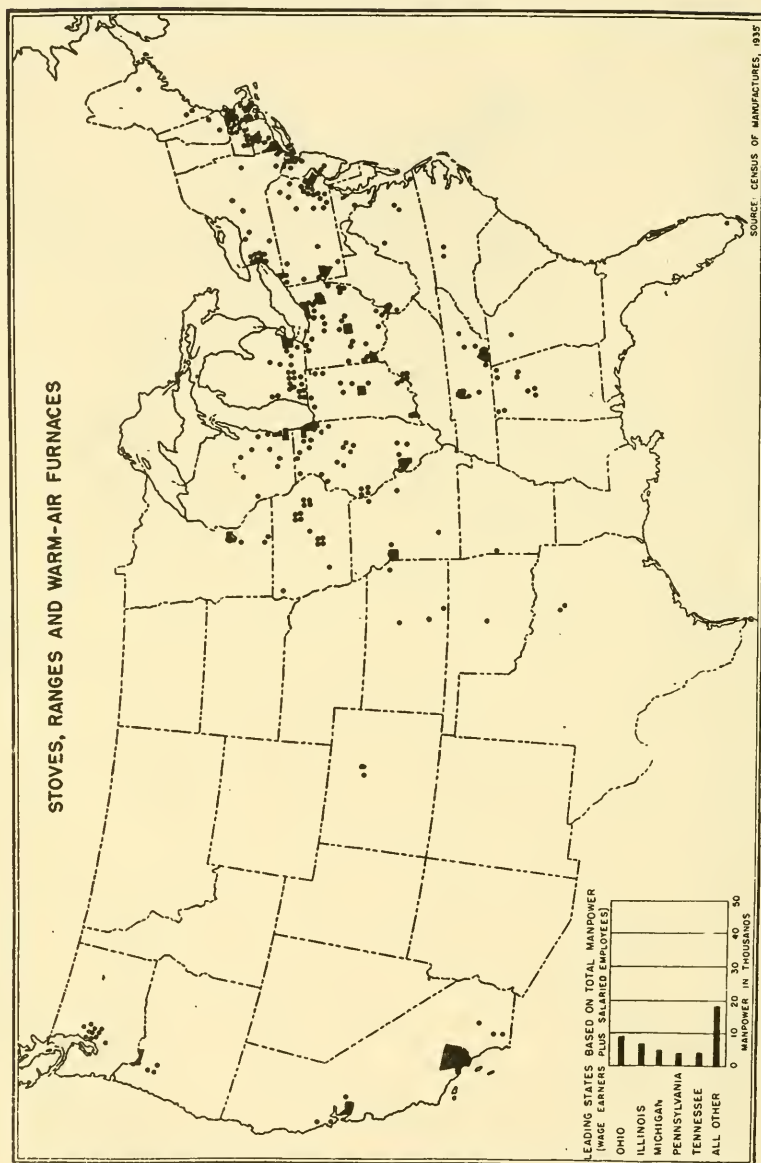


EXHIBIT No. 891



Dr. THORP. The hardware industry, you will notice, has 405 establishments. There are 405 dots on that map, very much concentrated in the northeastern part of the country. The planing-mill products, on the other hand, have 2,753 spots, and they are scattered all over the country, about as one would see if one had a similar type population map.

Here are cement and glass.

(The maps referred to were marked "Exhibits Nos. 888 and 889" and appear on pp. 5199 and 5200.)

Dr. THORP. Cement has 153 spots scattered fairly widely over the country; whereas glass, with its 213 establishments, is very much concentrated in the northeast and in the Oklahoma and the Texas area.

The other two industries, sheet-metal work, and stoves, ranges, and warm-air furnaces, again show a contrast.

(The maps referred to were marked "Exhibits Nos. 890 and 891" and appear on pp. 5201 and 5202.)

Dr. THORP. The sheet-metal work is conducted on a much more widely scattered basis than the stoves, ranges, and warm air furnaces industry.

Thus one finds that "building materials" as a phrase must be reviewed in terms of various types of building materials. One of the important characteristics is that the production of some building materials is local and others are scattered, while the production of some other building materials is concentrated into larger establishments, in particular areas.

CONCENTRATION OF MATERIAL MANUFACTURE

Dr. THORP. I have a considerable amount of information which I am going to present now, with regard to concentration in the building materials industry.

The charts and the data are taken from special tabulations of the Division of Manufactures, Bureau of the Census, prepared by sworn employees of the Bureau of the Census for the use of the Temporary National Economic Committee. The data for the most part are based upon the confidential reports of manufacturers submitted in connection with the Biennial Census of Manufactures, 1937. In some cases reports for the year 1935 have been utilized. This is true of the concentration percentage for the four leading companies in the industry as a whole shown in the individual industry analyses. These percentages are based upon special tabulations prepared by the Census Bureau for use by the National Resources Committee.

Certain qualifications will be useful in interpreting the following material. The regular reports of the Division of Manufactures use the physical plant or establishment as the unit for which data are collected and published.

The data here presented, however, are on a different basis, using an entire company as the unit. In this case we have included in the company all of the plants or establishments under a single ownership, together with subsidiary corporations where there was majority stock ownership.

This material has been worked over with great care. There are certain limitations on what we can present because of the legal limitations of the Census Bureau with respect to disclosure of individual

operations, and all this analysis has been done with extreme care to make certain that there would not be any disclosure of individual activity.

Mr. HENDERSON. When you come to an important segment in these construction material industries, in which you cannot present the information because the number of firms is less than five, would it not be of significance to indicate that to the committee, Dr. Thorp? In that way the committee might be apprised as to particular industries in which there was such a concentration either locally or nationally that prima facie there was a concentration of ownership which the Census rules prevent disclosing.

Dr. THORP. Yes; we do intend to present all the cases in which we are not allowed to present the cases. [Laughter.]

Mr. HENDERSON. I think even I ought to be satisfied with that. [Laughter.]

Dr. THORP. These three charts should be read together as one presentation. They are all entitled, "Selected Industries Producing Construction Materials." These charts must be kept separate from all the subsequent charts because they are on an industry basis and after this I shall move to a product basis. That distinction is very important to keep in mind.

(The charts referred to were marked "Exhibits Nos. 892 and 893" and appear on pp. 5205 and 5206. The statistical data on which these charts are based were marked "Exhibit No. 894" and are included in the appendix on p. 5511.)

Dr. THORP. The census groups establishments by industries, according to the major product of the establishment, and, therefore, an industry frequently includes enterprises which make, as secondary products, goods which should fall in various other categories.

It should be noted that this heading "Construction Materials" is also somewhat misleading because within these industries may appear products which quite properly belong within the industry but which are not construction materials. For example, in the marble and granite industry, there are included tombstones, although it is something of a stretch to regard tombstones as a part of the construction industry.

Plastics, which are often used in modern housing, would appear in the chemicals industry, and not be in this group. We can't correct for that situation in this table. It is corrected later when we discuss individual products. This table presents for the leading 25 construction materials manufacturing industries, the percentage of the product of the industry produced by the four leading companies.

Now, that is for all the products that are in each industry. It will vary, as one sees here, from, I believe, the highest, 81.6 percent, for asphalted felt base floor coverings and linoleum, to 4.5 percent for lumber and timber products.

This, as I indicated before, includes a consolidation of the enterprises into companies and is not on an establishment basis.

The scatter is rather considerable, as you can see, in something like fans. One finds about 8 percent of the concrete products produced by the four leading companies, whereas for gypsum products the figure runs as high as 75 percent.

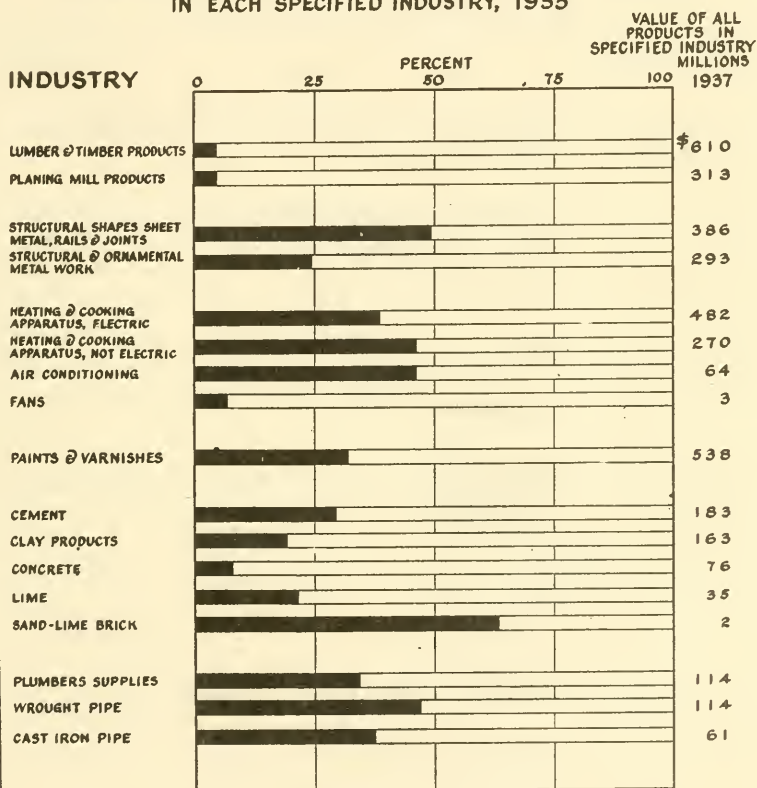
Acting Chairman REECE. The committee will stand in recess until 2:15.

(Whereupon, at 12:20 p. m., a recess was taken until 2:15 p. m. of the same day.)

EXHIBIT No. 892

SELECTED INDUSTRIES PRODUCING CONSTRUCTION MATERIALS 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
IN EACH SPECIFIED INDUSTRY, 1935



Percent produced by the four leading companies in each specified industry 1935

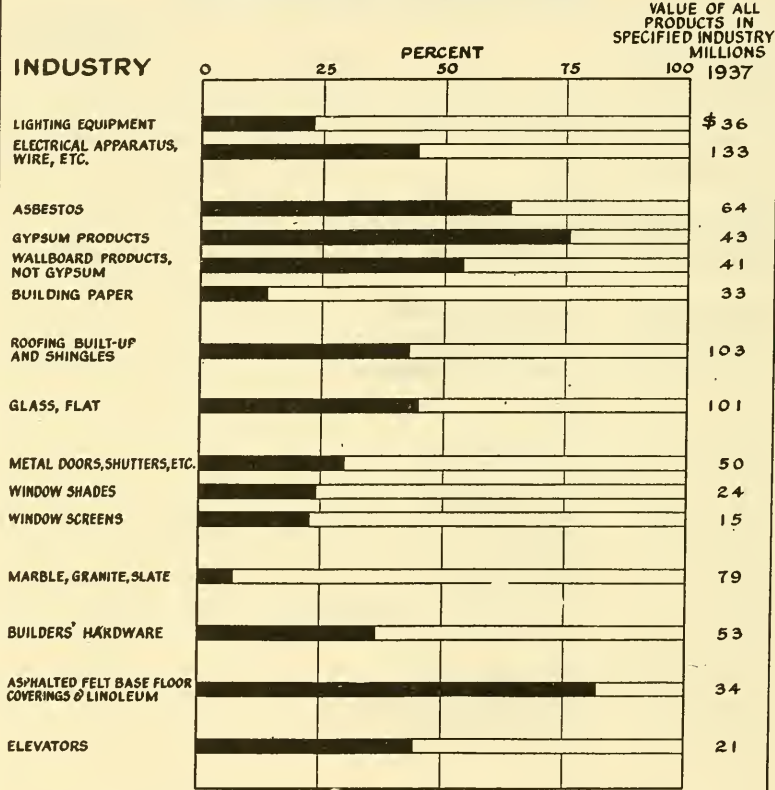
Source:—Bureau of the Census and National Lumber Manufacturers Association

D.D. 99-174-A

EXHIBIT No. 893

SELECTED INDUSTRIES PRODUCING
CONSTRUCTION MATERIALS
1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
IN EACH SPECIFIED INDUSTRY, 1935



Percent produced by the four leading companies in each specified industry, 1935

Source:- Bureau of the Census and National Lumber Manufacturers Association

D.D.39-174-B

AFTERNOON SESSION

(The committee resumed at 2:15 p. m. on the expiration of the recess.)

Acting Chairman REECE. The meeting will please come to order. You may proceed, Dr. Thorp.

Mr. O'CONNELL. Will you continue where you left off this noon?

Dr. THORP. At the conclusion of this morning's session, I was discussing certain measures of concentration in 25 census industries whose dominant activity was in the field of construction materials. I believe that we had completed the discussion of these census industries but to finish that picture, I wish also to include in the record a similar analysis prepared by the Bureau of Mines for seven industries whose products are mining products. I have no chart, but I shall introduce this material in the form of a table, "Building Materials Mined 1935 and 1937" and summarize briefly the concentration index.

(The table referred to was marked "Exhibit 895" and is included in the appendix on p. 5512.)

Dr. THORP. I might say that the four leading companies in all these cases are leading in terms of value of products, using 1935 rather than 1937 material.

The percentage of the total production done by the four leading companies are as follows [reading from "Exhibit No. 895"]:

Limestone.....	11	Sandstone.....	33
Sand and gravel.....	10	Marble.....	84
Gypsum.....	80	Asphalt.....	63
Granite.....	18		

A wide scatter from the limestone and sand and gravel at one end to gypsum and marble at the other is apparent.

I think I indicated this morning that one of the difficulties with this type of measure is that it is on an industry basis. It is perfectly possible, for example, for an industry to have 10 products of equal importance. Suppose each of those products was manufactured 100 percent by a single company, so that there were 10 companies in the industry, each producing all of 1 of the 10 products. A measure of this kind would show that the 4 leading companies produced 40 percent of the total production in the industry. We have felt, therefore, that a much more significant measure would be that of showing concentration with reference to the individual products, the concentration for specific commodities rather than the industry concentration. To that end we have made rather elaborate tabulations. The work is not completed, but I shall present as much of it as is now ready. This also is based on census material; it is supplementary material which is filed in connection with the Census of Manufacture in which each manufacturer reports the value of products and in many cases the volume of certain specified commodities.

In working with this material we have been able to refine it to this degree: For any specific commodity we have been able to include the production of that commodity by companies classified in other industries, so that we have been able to take total production rather than merely the production within the census industry itself.

This is much too voluminous to present in detail. I should like to put in the record the results as far as we have them for these com-

modities and then I shall discuss three of the groups to indicate the kind of evidence that they make available. The material covers 16 census industries as follows: Lumber; plumbers' supplies; asphalted felt base floor covering; iron and steel; structural and ornamental metal work; cement; marble, granite, slate, and other stone, cut and shaped; clay products and nonclay refractories; gypsum products; wallboard and plaster; lime; heating and cooking apparatus, except electrical; concrete products; planing-mill products; roofing material; and glass.

MR. O'CONNELL. Is it your intention that all of that material be inserted in the record?

DR. THORP. I think perhaps it is the most significant material that we have to present today. I hope it can be. This covers 16 census industries and 275 products.

(The exhibit referred to was marked "Exhibit No. 896" and is included in the appendix on p. 5512.)

DR. THORP. I should like to illustrate the significance of this product break-down by one illustration. You may recall that on our earlier chart the four leading companies in the lumber industry accounted for $4\frac{1}{2}$ percent of the total production.¹ If one examines that by specific products, as we have done, we find that—using lumber cut as our measure—the four leading companies cut 22.8 percent of the Douglas fir; for Ponderosa pine, the four leading companies, $15\frac{1}{2}$ percent; for Southern pine, the four leading companies, 7 percent. Thus, if one examines this by products, the concentration is much higher than if one groups all the products together.

Now, I should like to present three of the industries in some detail. First, I shall refer to the chart entitled "Plumbers' Supplies, 1937—Relative Production of the Four Leading Companies," and then the "Plumbers' Supplies, 1937—Products Classified According to the Proportion of the Leading Companies' Production to the United States Total."

(The charts referred to were marked "Exhibits Nos. 897 and 898" and appear on pp. 5210 and 5211. The statistical data on which these charts are based are included in the appendix on pp. 5541 and 5544.)

DR. THORP. In this chart each horizontal bar relates to a specific product within the plumbers' supply industry. For example, the first bar to enamel iron bathtubs, the second bar to enamel iron lavatories, the third bar to enamel iron laundry tubs, and so forth.

The bars are of differing widths, or perhaps I should better say different vertical heights, according to the importance of the product in the industry. Thus, the broadest bar, "other plumbers' brass goods," is as broad as it is because it represents 31 percent of the total value of the plumbers' supplies industry.

The black section of each of these bars represents the production of the four leading companies in that particular product.

It may be quite a different group of four companies producing "other plumbers' brass goods" than the four companies making "galvanized iron range boilers."

In the plumbers' supplies industry there are 208 companies. The column at the left indicates how many of these companies were active with reference to each product. The vertical dotted line at about 35 percent indicates the percentage of the total value of product of

¹ See "Exhibit No. 892" *supra*, p. 5205.

the total industry contributed by the four leading companies. This was shown on the earlier chart.

So that that is our industry concentration as against the product concentration.

In this particular chart, one finds that nearly all of the products show a much higher degree of concentration than is shown by the industry in general. For a number of the products, 60, 70, and even 90 percent of the production is done by four leading companies.

Dr. LUBIN. Dr. Thorp, would you point out specifically what commodities in this category of plumbers' supplies are concentrated to the extent that the four companies do 75 percent or more of the total output of the country?

Dr. THORP. Enameled iron laundry tubs, enameled iron sink and laundry-tray combinations, enameled iron flush tanks, enameled iron drinking fountains, vitreous china siphon-jet closet bowls, vitreous china reverse-trap closet bowls, vitreous china lavatories, vitreous china stalls, other vitreous china bathroom and toilet fixtures, and semivitreous or porcelain plumbing fixtures would all fall above 75 percent.

The second chart which I should like to discuss as part of this analysis relates to the proportion of each one of these products produced by the leading company, the one leading company in producing that product. It is on a percentage basis, but I can also give you the exact figures.

The black bar represents the distribution of these various products. For example, for six of the products the leading company falls in the 10 to 20 percent group, that is, produces between 10 and 20 percent of the total value of each product. For five products, the leading company falls in the 20 to 30 group, six in 30 to 40, four in 40 to 50, and two in 50 to 60 percent. The other bar indicates how important those products are in the total output of the industry, in this case it being very evident that the higher degrees of activity on the part of single companies are found in products of lesser importance in the industry, while those products in which there is the smallest importance shown by the leading company happen to represent more than half of the products in the industry.

There is one other chart with reference to this industry which will come a little later because we have put the material for three industries together as a summary in a later chart.

Acting Chairman REECE. Do you wish to put these other charts and the other data which you may get together in the record at that time?

Dr. THORP. You mean to complete the 25 census industries?

Acting Chairman REECE. Yes.

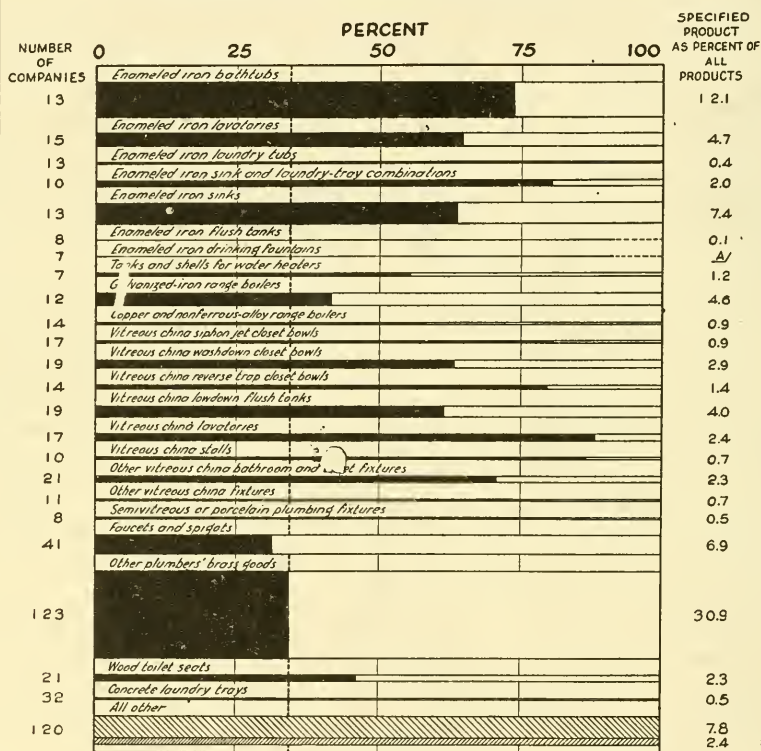
Dr. THORP. Yes, I think it would probably be very desirable to have that all brought together in the record at some later time, when we can complete the analysis.

This analysis is in a sense a byproduct of our work. We are doing this for somewhat over 2,000 commodities of all types throughout the whole economic system. What I am doing here is merely presenting the material for 275 of those which are pretty much in the building materials industry, and we hope at some later time to have a broad report on concentration which would not be limited to building materials but would cover all types of commodities.

EXHIBIT No. 897

PLUMBERS' SUPPLIES 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES PRODUCING SPECIFIED PRODUCTS



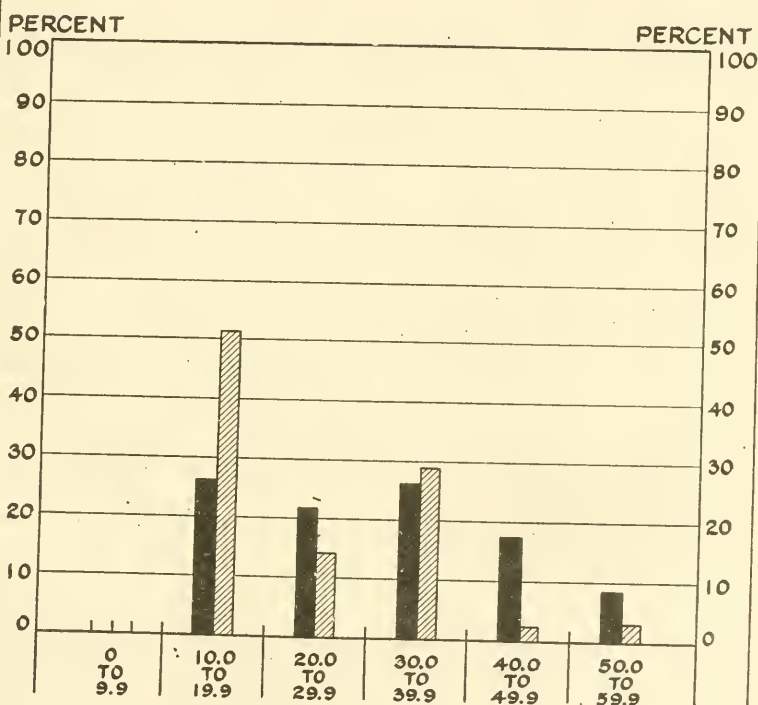
Source:—Bureau of the Census

D.D. 39-161

EXHIBIT No. 898

PLUMBERS' SUPPLIES 1937

PRODUCTS CLASSIFIED ACCORDING TO THE
PROPORTION OF THE LEADING COMPANIES
PRODUCTION TO THE UNITED STATES TOTAL



PROPORTION OF THE LEADING COMPANY'S PRODUCTION TO THE
UNITED STATES TOTAL

■ Percent of total - Number of products
▨ Percent of total - Value of products

Source: Bureau of the Census

DD-39-161-A

The next pair of charts, paralleling those which were just presented, relate to "Roofing, Built-up and Roll, Asphalt Shingles, etc., 1937."

(The charts referred to were marked "Exhibits Nos. 899 and 900" and appear on pp. 5214 and 5215. The statistical data on which these charts are based are included in the appendix on pp. 5544 and 5546.)

Dr. THORP. In this case there are 69 companies in the industry, and the various measures of concentration are shown in the same way that they were shown in the other chart. In this particular illustration there is much less black on the chart than on the previous chart; the concentration measures are lower. There is, however, one case, that of asphalt roof cement, which exceed 75 percent.

It is an interesting situation in which the industry figure, somewhere in the neighborhood of 40 percent is higher than was the industry figure in the previous chart, but when one analyzes it by individual products, the concentration picture does not stand out to the same degree.

Dr. THORP. Taking the second chart on this same subject it is apparent that for these commodities, of which there are 13, the leading companies appear most frequently in the 10 to 20 group, and over 90 percent of the product is in that group.

I have one other case to represent the other extreme. That is the case of asphalted felt base floor coverings and linoleum.

(The charts referred to were marked "Exhibits Nos. 901 and 902" and appear on pp. 5216 and 5217. The statistical data on which these charts are based are included in the appendix on pp. 5546 and 5547.)

Dr. THORP. In these two charts the percentages run much higher. The lowest is that of piece-goods, 12/4 and wider, where 66.5 percent are done by the 4 leading companies. This is an industry in which there are only 11 companies engaged. All 11 are active in making this product. In the linoleum field where there are only 4 companies, it is obvious that our black line necessarily goes to the very end of the chart.

In making the analysis with reference to the percentage of the leading companies in this case, we find that most of them fall in the 30-to-40-percent group.

Dr. LUBIN. A significant thing about these figures which interests me is the fact that here you have 3 important industries that cater to the Nation, cater to a hundred thousand contractors in a sense, that is, a hundred thousand potential customers, who in turn represent millions of other potential customers who take the finished products after they have been assembled, and yet under plumbers' supplies, for example, there are only 13 firms in the whole country which manufacture bathtubs, enameled sanitary iron; only 8 manufacture enameled iron sanitary flush tanks; and you find similarly in the roofing industry, only 30 of them make asphalt smooth roll roofing; and down the line you find that only 11 of them make waterproofing fabrics; and similarly one could go on to linoleum, where you mention the case of 4. Would you say this was typical of manufacturing as a whole? In other words, would you find as small a number of firms engaged in manufacturing a product which is so universally used in other types of industries? It certainly wouldn't be true of the textile industry as such where you have fifteen or sixteen hundred producers in different types.

Dr. THORP. No; I hesitate to say, though, at this time, whether it is typical or not. I think we shall be able to answer that much better when we are finished with our 2,000 commodities. My guess would be that one will find rather a tendency that products are made either by a few or by a considerable number.

I am going to show in a moment why some of the cases in which we apparently have a great many engaged are as a matter of fact much more concentrated than would appear. I think it is probably fair to state, though, this is not supported by data and may be disproved when we finally have our evidence. I should expect that our picture through these building material industries will show as high a degree of concentration as in any other general branch of manufacturing activities.

Dr. LUBIN. The thing that impressed me is that in plumbers' supplies, which are essential to every house, there is only 1 branch of that industry, namely, faucets and spigots, that has as many as 40 firms engaged in the manufacture. You have your other plumbers, brass goods, which is a combination of goods, and that adds up to 123. That seems to be an awfully small number of firms engaged in making an essential that is used by everybody in the country.

Dr. THORP. I think the only comments I should like to make are to make sure that this is technically accurate. The first comment is that the census includes only establishments which produce \$5,000 or more of products, so that there may well be some small manufacturers not important in the total number, but perhaps important in number who are not shown; and the other is that we are working with census material and have to take it as reported to the census.

Dr. LUBIN. I am not questioning that. I am pointing out the significance of the fact that we like to think of industry as scattered and owned and controlled by large numbers of people.

Dr. THORP. I think some of the additional material will emphasize that point. It is perhaps the most significant point that can be made about the building materials industry, namely, the fact that it is an industry in which at any given point there are relatively few producers. I said that I had some additional material on these three industries and it now appears in this chart "Frequency of Appearance of the Same Companies Among the Leading Four Producers."

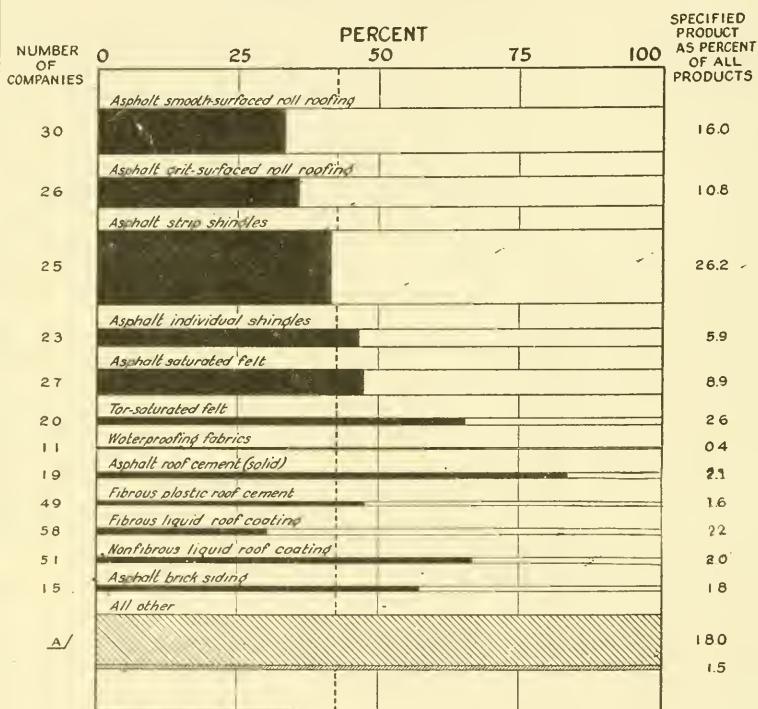
(The chart referred to was marked "Exhibit No. 903" and appears on p. 5218.)

Dr. THORP. Now, you remember for each product in the plumbers' supplies industry we had recorded the 4 leading producers. This is a matter, therefore, of going over 23 products and finding out how many times the same company appeared. It is a rather interesting picture. Here is 1 company that appeared somewhere within the first 4 in 18 of the 23 products. Here were 2 companies that appeared somewhere within the first 4 in 14 out of the 23 products. At the other end of the scale are 28 companies which just appeared once, maybe in fourth position for some one of the products. From this you get a very clear picture of 2 types of performance in the industry. Certain enterprises sweep through a number of products, while other enterprises achieve prominence in connection with 1 or 2 of the products. In the roofing industry there were fewer products, 13 products, and in that case the company which appeared most often appeared in connection with

EXHIBIT No. 899

ROOFING, BUILT-UP AND ROLL, ASPHALT SHINGLES, ETC. 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
PRODUCING SPECIFIED PRODUCTS



Source - Bureau of the Census

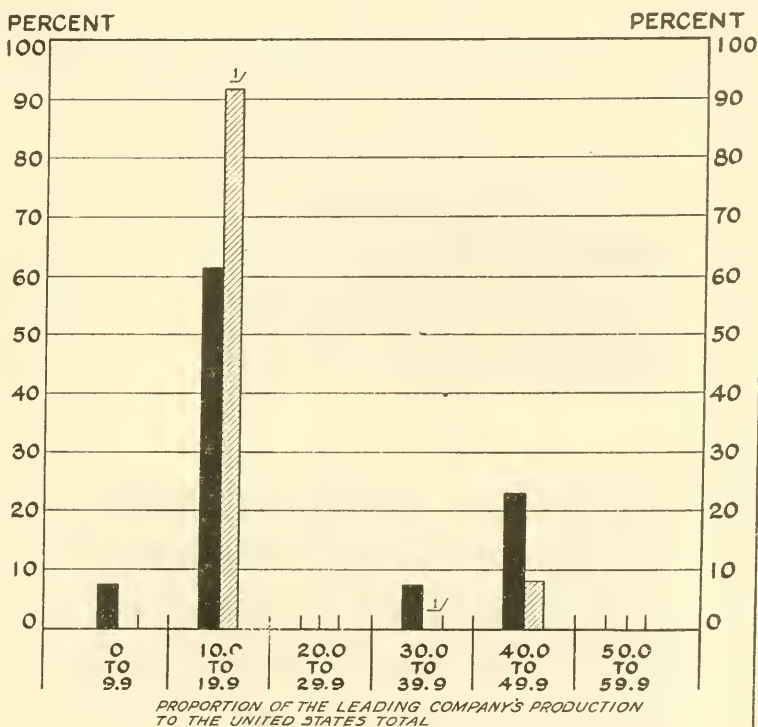
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EXHIBIT No. 900

12-A

ROOFING BUILT-UP AND ROLL ASPHALT SHINGLES, ETC. 1937

PRODUCTS CLASSIFIED ACCORDING TO THE
PROPORTION OF THE LEADING COMPANIES
PRODUCTION TO THE UNITED STATES TOTAL



PROPORTION OF THE LEADING COMPANY'S PRODUCTION
TO THE UNITED STATES TOTAL

■ Percent of total-Number of products

▨ Percent of total-Value of products

▧ Includes value of one product classified in the preceding group to avoid disclosure of operations of individual establishments

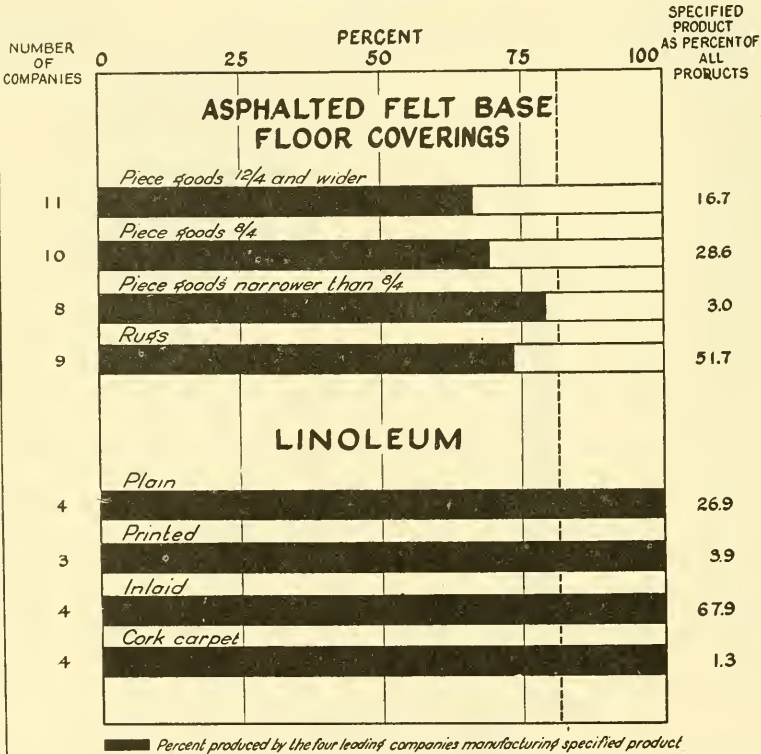
Source—Bureau of the Census

DD 39-166-A

EXHIBIT No. 901

ASPHALTED FELT BASE
FLOOR COVERINGS
AND LINOLEUM
1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES PRODUCING
SPECIFIED PRODUCTS



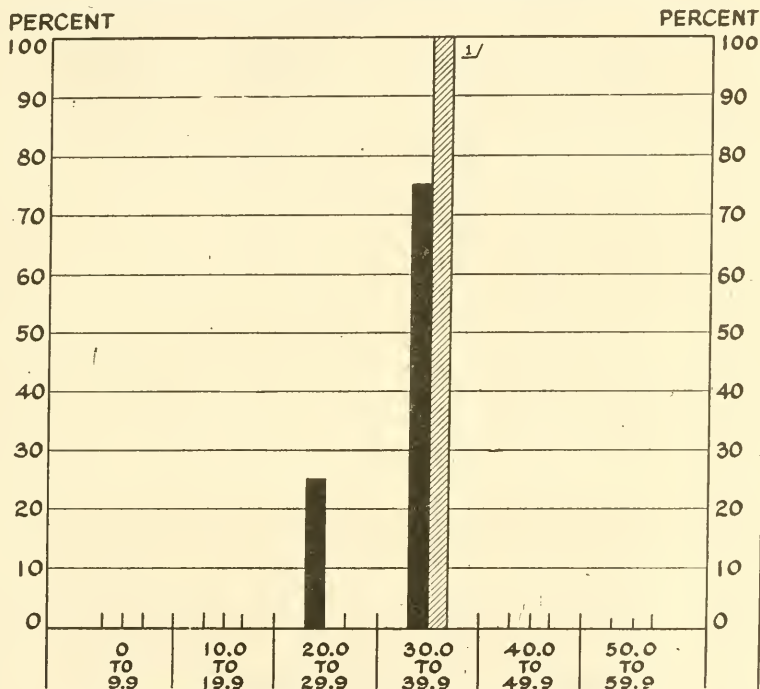
Source:- Bureau of the Census

D.D. 39-170

EXHIBIT No. 902

ASPHALTED FELT BASE FLOOR COVERINGS AND LINOLEUM 1937

PRODUCTS CLASSIFIED ACCORDING TO THE
PROPORTION OF THE LEADING COMPANIES
PRODUCTION TO THE UNITED STATES TOTAL



PROPORTION OF THE LEADING COMPANY'S PRODUCTION TO THE
UNITED STATES TOTAL

■ Percent of total - Number of products
▨ Percent of total - Value of products

1/ Includes value of one product classified in the preceding group to avoid disclosure of operation of individual establishments

Source - Bureau of the Census

DD-39-170-A

8 of them. In the asphalted felt-base floor coverings industry I did note there were still fewer, 4 products, and in that case 2 companies appeared in 4 cases.

EXHIBIT No. 903

FREQUENCY OF APPEARANCE OF THE SAME COMPANIES AMONG THE LEADING FOUR PRODUCERS 1937

NUMBER OF APPEARANCES	PLUMBER'S SUPPLIES	ROOFING BUILT- UP AND ROLL; ASPHALT SHINGLES, ETC.	ASHPHALTED FELT BASE FLOOR COVERINGS AND LINOLEUM
1	2 8	8	1
2	4	3	2
3	2	1	1
4	1	1	2
6	—	2	—
7	—	1	—
8	—	1	—
1 4	2	—	—
1 8	1	—	—

Source:—Bureau of the Census

D.D. 39-177

The only evidence which I can give you on all 275 commodities, other than the full details in the table which has gone into the record, is a summary for all these commodities of the importance of the leading company in each case. I think that it is sufficiently important for me to read the frequency distribution as it appears. There are 11 of the products which we were not able to analyze for various technical reasons. We have 264 for which we have the activity of the leading

company. For 19 of them, the leading company produced under 10 percent of the national total; for 67 of them, 10 to 20 percent; and for 48 of them, 20 to 30 percent. That happens to be almost exactly one-half, so that for one-half of these products the leading company produces less than 30 percent. For the other half the leading company in the production of that product produces more than 30 percent of the total national production. As one pushes on from 30 to 40 percent, there are 51 products; from 40 to 50 percent, 43 products; from 50 to 60 percent, 23 products; and over 60 percent, 13 products. It happens that those 13 products are relatively small in terms of value of product. But I think it is of some significance that for about 13 percent of all these products which we have analyzed, with no particular selection about it except that they happen to be all the products in 16 census industries, the leading company produces more than half of the production of the product in the United States.

(The table referred to was marked "Exhibit No. 904" and is included in the appendix on p. 5548.)

Dr. THORP. There is one other thing which I can indicate. I am sorry that Commissioner Henderson isn't here because he was inquiring about it this morning. We spoke about the adequacy of the tabulation and the degree to which it was impossible to complete these tabulations without violating the census rule of disclosure. I should like to say that in the tables which have been filed in the record, the products for which we could not present figures are indicated by a footnote as those which would violate the principles of disclosure. The disclosure rule is based upon a legal requirement that the figures must not be published in such a way that anyone can deduce from them the records of an individual company.

At this point, I should like to express my appreciation for the cooperation which the Census Bureau has given us in this enterprise. Already burdened with its regular duties, it has aided us greatly in making our analyses, and it has scrupulously upheld its legal obligations. The knowledge and experience of its technical staff has been invaluable.

Of the 275 cases there are 41 products for which it is not possible for us to make tabulations without violating the disclosure rule of the Census Bureau, and those products, I think, are noted by a footnote to the table.

Mr. O'CONNELL. In other words, Doctor, in 41 of the products the degree of concentration was so high that to demonstrate it would have violated the rule of the Bureau.

Dr. THORP. There is one other complication appearing in this picture that occasionally happens. If you took an industry and gave the figure for four producers and there were only five plants, then someone who knew his census statistics could take those four and subtract them from the five. This would create a kind of disclosure. But in general I think your proposition would be correct. The disclosure rule works where there is such concentration in the industry that anyone who knows a part of the industry well would be able to deduce the results of the rest of the industry from this information.

Dr. LUBIN. Could you name the commodities on which you can't publish information for the record? ¹

¹ These commodities are indicated by special footnotes in "Exhibit No. 896," see appendix, p. 5512, et seq.

Dr. THORP. Yes; they are in the table. You don't happen to have that full table, I am sorry. It is something like 60 pages long. If you would like, we could list those commodities separately and have them put in the record.¹

Acting Chairman REECE. That may be done.

Dr. THORP. I should like to make it clear that it may be a matter in which there are so few companies in the industry that the disclosure would result from that rather than that it is dominated by one or two companies.

There still remains one serious difficulty about this type of analysis. Perhaps that is an understatement. There remain several, but I shall take up one at this point. For certain of these building materials, where their production is essentially local in nature, a national analysis fails to indicate the importance of concentration in any particular market. To illustrate that, we have made an analysis for two industries with reference to certain specific markets.

First, let us take the case of common brick. This chart is entitled "Common Brick, 1937."

(The chart referred to was marked "Exhibit No. 905" and appears on p. 5222. The statistical data on which this chart is based are included in the appendix on p. 5548.)

Dr. THORP. We have selected five areas in which we have made an analysis of the degree of concentration of common brick production. The national concentration for common brick is about 7 percent in the four leading producers, but obviously common brick having such a heavy cost of transportation does not move completely around the country. We have this analysis broken down and this is the result. For the area which we call the District of Columbia—in this area it is the District plus the State of Virginia—there are three producers.

For the Philadelphia area, where there are 10 producers, the 4 leading producers do a little over 60 percent. For San Francisco and Oakland, there are only 2 producers.

In Los Angeles, there are seven producers, but we can't present the figures because it would be a disclosure. In New York-Newark, New Jersey, there are seven producers, but we cannot present the figures because it would be a disclosure. Thus, if a product such as common brick is taken, one finds much greater concentration within any particular market than would appear from national figures.

We have a similar analysis for planing mill products which I want to present, because it not only illustrates this point, but illustrates one or two other points as well that are useful here.

These three charts are entitled "Planing Mill Industry, 1937."

(The charts referred to were marked "Exhibits Nos. 906, 907, and 908" and appear on pp. 5223, 5224 and 5225. The statistical data on which these charts are based were marked "Exhibit No. 909" and are included in the appendix on p. 5549.)

Dr. THORP. They represent a similar analysis with reference to certain planing mill products for six of the areas in the country. Now, in this particular case, there are various types of doors—pine doors, Douglas fir doors, hardwood doors, other doors, garage doors—and sash, window and door frames. One can follow it through for the different areas. For example, of the 40 companies producing window and door frames in the Chicago area. 4 of them did nearly 60 percent; in Milwaukee, 53 percent; in the Kansas City area, we can't give

figures because of disclosure; in the Seattle-Tacoma area, 58 percent; in the Los Angeles area, 52 percent; and in the San Francisco-Oakland, 38 percent.

I should like to have you keep this in mind, because it emphasizes one further point with regard to this type of analysis. When one is discussing concentration in terms of specific commodities, one may sometimes overstate the situation by failing to recognize that there may be a number of commodities which are interchangeable. For example there might be only one man producing pine doors, but he still might be affected by the people producing Douglas fir doors, hardwood doors, other doors, and so forth. One of the things that one has always to keep in mind in any product analysis is the fact that certain products may stand alone while others are faced by substitutes. Thus, the effective concentration is by no means as great as might appear.

I have one further chart to present which makes certain of these comparisons for the years 1935 and 1937.

(The chart referred to was marked "Exhibit No. 910" and appears on p. 5226. The statistical data on which this chart is based are included in the appendix on p. 5552.)

Dr. THORP. I am introducing to indicate that it makes a certain amount of difference as to when one happens to take these measures. In most cases the percentages were fairly close. But there are a few cases, particularly in the clay products industries, where revisions within the census, made by the Census Bureau, have, we think, made the data not perfectly comparable.

In general, from this material one cannot discover any indication whether or not there has been an increase or a decrease in the amount of concentration in the 2-year period. That, however, may be one of the interesting things that will appear as one makes further analyses of this material.

At this point I merely want to emphasize the fact that there are shifts from time to time. For example, for thermostats, 65 percent were produced by the four leading companies in 1935; 75 percent in 1937; while for asphalt smooth-roll roofing the percentage dropped from 41 to 33.

One thing that needs to be emphasized in getting at this picture is that we have isolated for the purpose of this analysis individual products, and companies have been tabulated only with reference to that particular product.

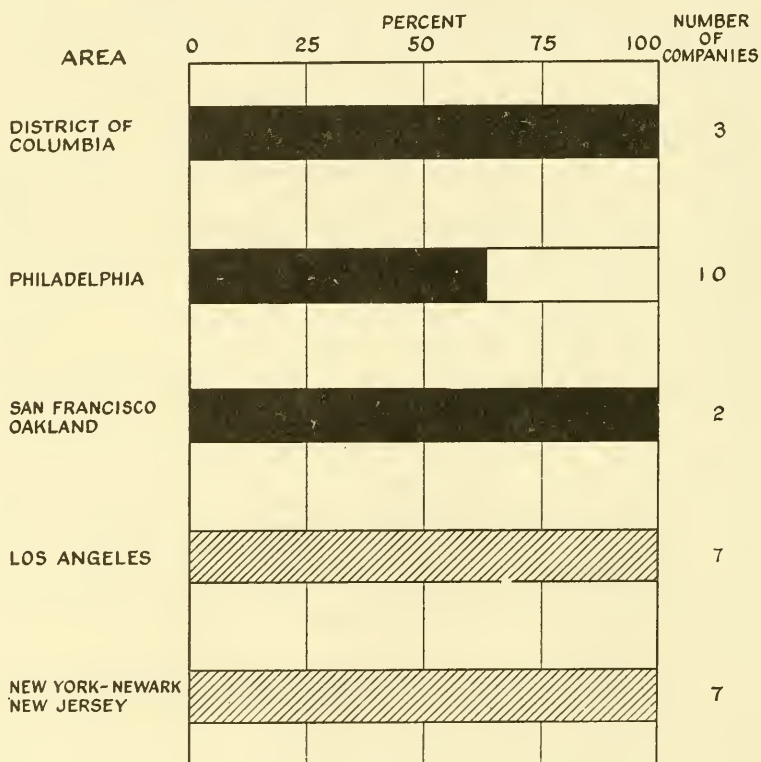
Another part of our work in the Department of Commerce, which I can discuss at the moment only enough to indicate the type of result, is to trace some of these companies through a considerable number of products, thinking of them not solely in terms of any particular product, but in terms of their total activity.

I can present to you as illustrations two companies, both of which are in considerable measure active in the building materials industries. The first of these companies, and in this case we are using 1935 information, operates between 20 and 30 plants in census industries and produces 111 census products. In other words, if one were following the type of product analysis which I have made, there would be 111 different points at which that company might appear as one of the leading four, or might not.

EXHIBIT No. 905

COMMON BRICK 1937

RELATIVE PRODUCTION OF THE FOUR LEADING
COMPANIES IN SELECTED INDUSTRIAL AREAS



Percent produced by the four leading companies in each selected industrial area
 Concentration not shown to avoid disclosure of individual operations

Source:--Bureau of the Census

DD 39-167

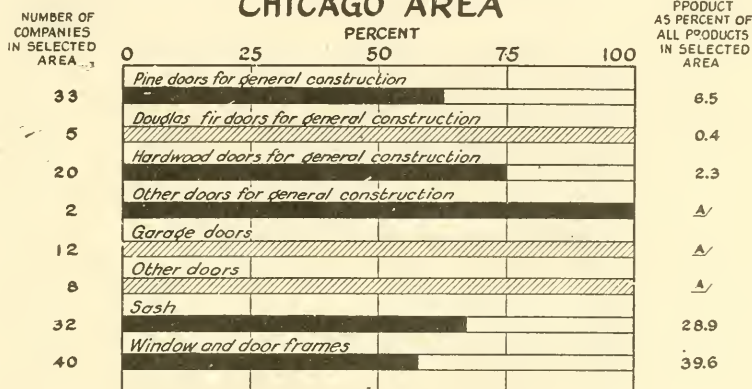
EXHIBIT No. 906

15-A

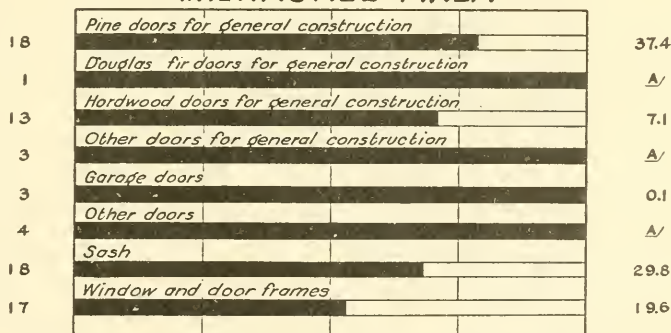
PLANING MILL INDUSTRY 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
PRODUCING SPECIFIED PRODUCTS BY SELECTED INDUSTRIAL AREAS

CHICAGO AREA



MILWAUKEE AREA



■ Percent produced by the four leading companies manufacturing specified products in selected area

▨ Concentration not shown to avoid disclosure of individual operations

A/ Withheld to avoid disclosure of individual operations

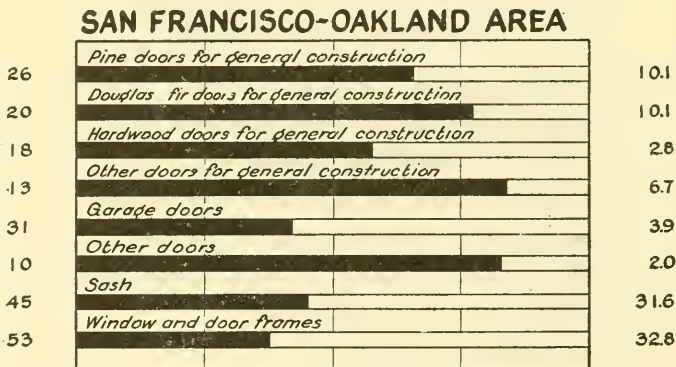
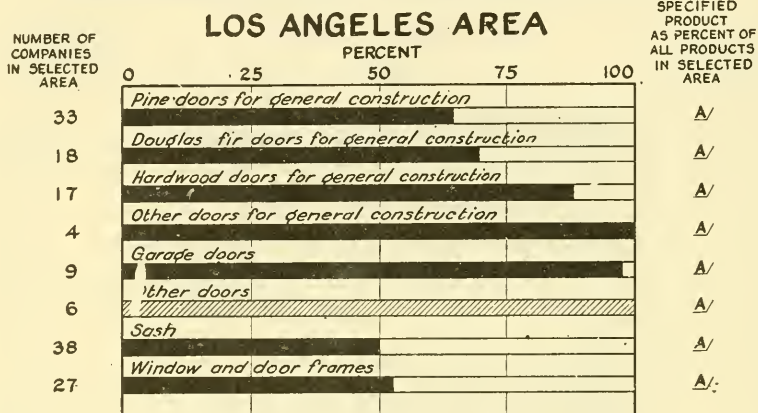
Source: Bureau of the Census

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EXHIBIT No. 907

PLANING MILL INDUSTRY 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
PRODUCING SPECIFIED PRODUCTS BY SELECTED INDUSTRIAL AREAS



■ Percent produced by the four leading companies manufacturing specified products in selected area

▨ Concentration not shown to avoid disclosure of individual operations

A/ Withheld to avoid disclosure of individual operations

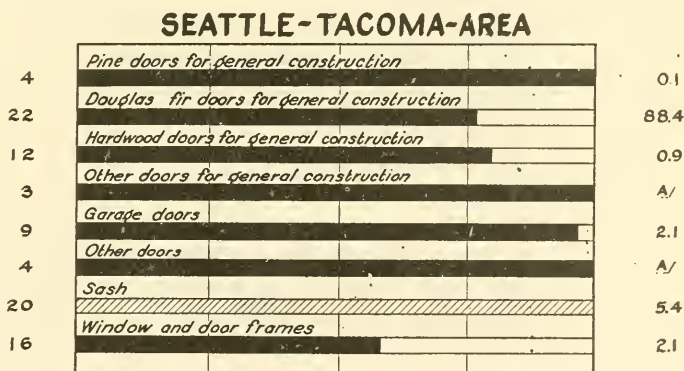
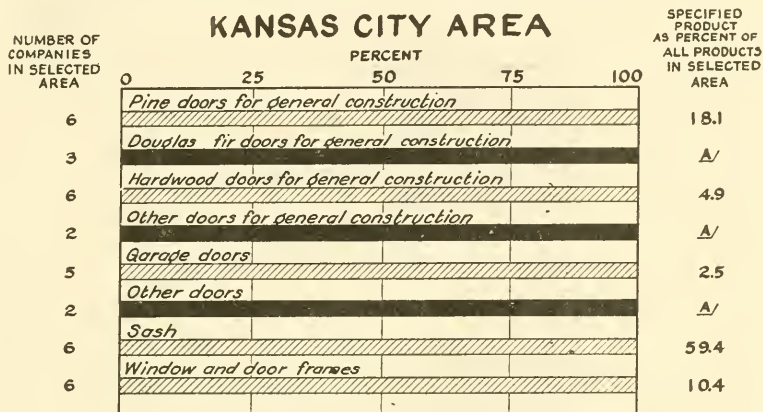
Source: Bureau of the Census

00-39-168-B

EXHIBIT No. 908

PLANING MILL INDUSTRY 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES
PRODUCING SPECIFIED PRODUCTS BY SELECTED INDUSTRIAL AREAS



■ Percent produced by the four leading companies manufacturing specified products in selected area
 ▨ Concentration not shown to avoid disclosure of individual operations
 A/ Withheld to avoid disclosure of individual operations

Source: Bureau of the Census

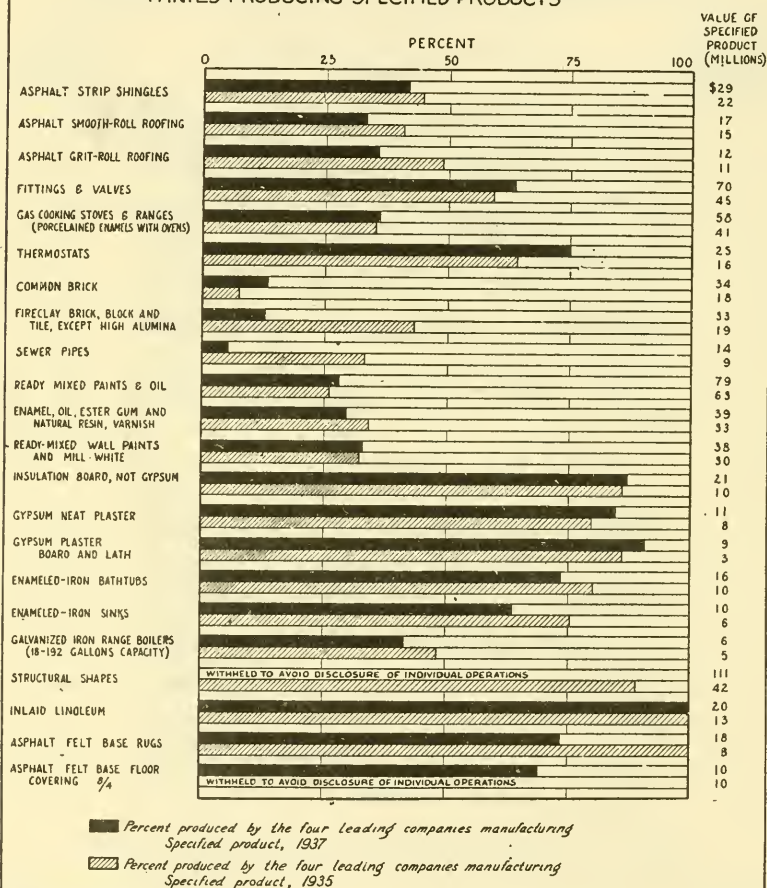
D.D.39-168-C

Of these 111 products, I think it is important to know that in 28 cases we cannot get a percentage because the product itself is so non-standardized. In 52 of the cases this company produces less than 10 percent; in 14, from 10 to 20; in 7, from 20 to 30; in 5, from 30 to 40;

EXHIBIT No. 910

SELECTED CONSTRUCTION MATERIALS 1935 AND 1937

RELATIVE PRODUCTION OF THE FOUR LEADING COMPANIES PRODUCING SPECIFIED PRODUCTS



Source: Bureau of the Census

DD 39-175

and in 5, from 40 to 50 percent of the national total. In other words, here is a large company making 111 products, in some of which it is relatively unimportant; in fact, in half of them it produces less than 10 percent of the national total, and in only 5 of them it reaches 40 percent. Those five amount to about 11 percent of its total activity.

Now let's take another company. In this case also there are between 20 and 30 establishments, which fall in 16 industries and produce 79 products. Only 3 of those are we unable to analyze. In 51 of them this company produces less than 10 percent of the national total; in 4 of them, from 10 to 20; in 7, from 20 to 30; in 3, from 40 to 50; and in 2, from 50 to 60 percent. All of those products which represent over 40 percent of the national total, of which there are five, amount to 7 percent of this company's total production.

I put this into the record merely so that one doesn't get the oversimplified concept of a company operating on a particular product only, but remembers that in our economic system as it actually functions these companies appear with respect to many products. I think that point has a bearing, Commissioner Lubin, on the point which you made with reference to the number of companies appearing in those tables. Those companies might have been the same companies appearing over and over at various points in the tables, and actually there may be a much smaller number of companies engaged than would appear if one took product by product.

One other general caution needs to be made. As far as this picture goes, it is a picture of companies plus subsidiaries in which they have a majority stock ownership. There may be many other types of relationship which bring companies together into an operating unity, which would not appear in these tables. From that point of view, the tables would understate the concentration rather than overstate it. On the other hand, as a caution in the other direction, I should like to repeat the point that many products are substitutable. This fact raises a definite question as to the meaning of a word such as monopoly. Is there a monopoly if one company is the sole producer of a given product, when some other product is an immediate and direct competitor of that product for its use? I think we know very little about the degree to which products are substitutable, and that is one of the types of analysis that still remains to be done with regard to this material.

I think the summary of this picture of the building materials industry has to be made in these terms. Certainly in comparison with the earlier phases of the economic activity which we have discussed, namely the work at the site of construction and the operations of the dealers, manufacturing appears to be much more highly concentrated. Even in those cases where there appears to be a considerable number of producers, the products seem to be largely products which are sold locally. Thus for the national products, there are small numbers of producers, and where there are many producers, those producers are not operating in the national market but are operating in local markets, so that the numbers at that point are also reduced.

I still have one other point on which I wish to present some information, and that is with regard to trade associations in these industries. We are engaged in the Department of Commerce in making a study of trade associations, particularly national and regional associations, and I am able to give you some of the preliminary results of that survey with reference to the building industry.

We find that the national and regional trade associations are somewhat as follows. There are three, primarily for general contractors, with about 2,500 members. You may remember that our figures showed over 30,000 general contractors. There are eleven trade asso-

ciations of subcontractors, with about 15,000 members. You may recall that our estimates (including enterprises without employees) ran well over 100,000 subcontractors. There are thirty-eight associations of distributors, with 45,000 members. The census figure there, as I recall it, was somewhere around 80,000, including retailers and wholesalers as distributors.

In the building materials industry, on the other hand, there are 133 associations, and because there is so much overlap I can't give you the figure of membership.

I should like to submit for the record a table of the number of national and interstate and regional trade associations, which not only give these figures which I have quoted but breaks down the building materials producers into various general types of building material.

(The table referred to was marked "Exhibit No. 911" and is included in the appendix on p. 5552.)

Dr. THORP. I think it would be fair to state that as far as national and regional organization is concerned, the further one gets away from the actual building job, the more there is of formal trade association activity. Among contractors and subcontractors, national associations are relatively unimportant. I should add that our figures, which total 185 associations, do not include technical and professional associations, or those in the real estate or financing field, or various activities allied to the construction industry.

I am also able to present some information with regard to the extent of coverage of these associations as they have reported to us, in terms both of membership and of the percentage of total industry activity which they cover.

(The table referred to was marked "Exhibit No. 912" and is included in the appendix on p. 5553.)

Dr. THORP. I have the detailed figures for filing in the record. Perhaps I might only cite the figures with reference to 60 percent or more. Take first the table of membership. Only 17 percent of the contractors' associations cover 60 percent or more of their eligible members. Most of them, in other words, have a smaller coverage.

Of the distributors, 56 percent of the associations cover 60 percent or more; and of the building material producers, 46 percent cover 60 percent or more of their eligible membership. If one reduces that to activity, it is apparent that the larger enterprises are the members of these associations because the percentages are much higher.

(The table referred to was marked "Exhibit No. 913" and is included in the appendix on p. 5553.)

Dr. THORP. I have one other table which gives us a good deal of light on these associations. This material relates to their yearly expenditures. We have the detail for 182 associations. I think it is rather significant to note that in all these lines—building materials producers, distributors, and contractors—over half of the associations spend less than \$20,000 a year in their budgets. They are not major enterprises. On the other hand, if one considers those that expend more than \$50,000 a year, the concentration is largely among the building materials producers.

(The table referred to was marked "Exhibit No. 914" and is included in the appendix on p. 5553.)

Dr. THORP. There are only three building distributors' and two contractors' associations which exceed \$50,000 a year in their budgets.

I should like to emphasize the fact that these national associations have rather elaborate programs, and as one gets back into the building material producers' groups, one finds a considerable volume of technical research is done. Down at the level of the distributors and of the contractors, there is not that same degree of emphasis. I merely cite two illustrations, not to single them out, but to indicate the type of thing that is done by some of these national associations. The National Lumber Manufacturers' Association, for instance, has been the leading force in developing the national small homes demonstration procedure which has created so many demonstration homes around the country, usually under \$5,000. The Portland Cement Association is now developing a light traffic road of cement to cost about \$5,000 a mile, which gives promise of excellent results.

When one gets down, however, to the State and local associations, we have almost no information concerning their activities. We are able to estimate that there are about a thousand of them throughout the country which actually can be regarded as organized associations. As to their activities, our information is very slight except as they happen to have run afoul of the laws of one sort or another and therefore appear in court records.

I should like merely to emphasize the fact that these State and local associations are associations primarily of dealers and of contractors. Thus as an over-all picture we have a rather large group of strong national associations at the building materials level, while the associations of the dealers and of the subcontractors, with few exceptions, are local or State rather than national.

Mr. O'CONNELL. Dr. Thorp, may I ask a question there on trade associations generally? Do you expect that the Department of Commerce will at a later date present material to the committee relative to the activities of trade associations more generally? I was interested in the general observations you made as to the size of national trade associations and the several instances you gave of type of activity that they undertake. Is the Department going to go into more detail at a later date before the committee as to what their activities are?

Dr. THORP. That is one of our major research projects, I think. As to whether or not we present it before the committee will depend on the committee's—

Mr. O'CONNELL (interposing). You are at work collecting material?

Dr. THORP. We are preparing material and hope very much to be able to make a report on the trade association movement which will cover all trade associations, and I present this material merely as illustrating some of the things which we are getting for all associations. We have much more material about the activities of these associations but it is not in a form in which I can present it as yet. I know we will be delighted to present it to the committee at some later time.

Mr. O'CONNELL. One more question: Is the sort of information you are collecting as to the activities of these large trade associations, their activities which you might call their charter activities; that is, the activities that are included in their certificate of incorporation, we

might say, as distinguished from what they might actually do in practice?

Dr. THORP. What we are actually doing is asking them what they are doing and getting a picture from them of the things which they say they do. I think we are also trying to get the picture from various other sources as to what other people may think they do. We are going to try to get, not a picture of their activities as it might show up on paper or chart, but as it would show in their budgets and their own allocation of people and types of committees which they have and various indirect evidences as to what the activities are.

This concludes the presentation of material and I should like merely to try to summarize it if I may very briefly.

I think one of the unfortunate things about the construction industry is that one tries to generalize about it, and I would be just as guilty as anyone else now of generalizing. I think it is important, however, to get some feel about the whole situation. I should like to summarize it this way: The construction industry in general is one in which through all its stages there is an underlying tendency for the sellers to be stronger than the buyers. This is true all the way from the producers of building materials, who are in many cases large and concentrated, down through to the poor ultimate consumer who buys the product—a purchaser who is an amateur, who makes one purchase and knows very little about it, and who has nothing to speak of in the way of bargaining strength.

Now, it is true that along that line at various points, groups have been able through one method or another to gain strength, so that in some particular places and in some particular lines (it may be in the dealer group, or it may be in some other areas) some particular group of raw material producers has been able to achieve strength. By and large, however, we have to think of this as an industry which starts at one end with small numbers in producing groups and at the other end with small numbers in local specialized building groups. The net result, as I have pointed out a number of times, is for these various specialized groups of material producers, of subcontractors, of dealers, to endeavor to strengthen themselves. The effect of this on the general economic behavior of the industry may be summarized as follows: No activity or segment of the industry is important enough that any price reduction which it makes will increase its profits by increasing its volume of work; and every activity is important enough that it can increase profits by holding up the rest of the industry.

You have a situation, in other words, where the multiplicity of parts tends to make no part feel responsible for the totality, and yet each part is in a strategic economic position whereby it can endeavor to strengthen itself at the expense of the whole.

Above all, there is no central responsibility for this industry. There are many parts which are brought together temporarily for one job and temporarily for another job, but there is no central agency, no central pattern, no central organizing force in the construction industry. That seems to me to be one of its most significant characteristics, and is particularly important in a product in which the demand expresses itself not in terms of any of these parts but in terms of a finished product in which each part is relatively unimportant.

Mr. O'CONNELL. I have no question. Do any members of the committee?

Dr. LUBIN. Dr. Thorp, as I get your testimony the thing that impressed me particularly was the fact that in the building materials industries the number of firms engaged in making any specific commodity is relatively small, and within each small group in many instances 4 or fewer firms dominate production at least to the extent that they account for a very large portion of the total output. Now, that in itself, of course, cannot be taken as an absence of competition because it is conceivable that you can have more effective competition among 5 competitors than you would among 500.

On the other hand it does in a sense create a situation where through price leadership or other devices, it becomes possible for the competitor forces to be delayed in their operations. Do you have any figures which show what has happened to building material prices as compared to other prices, say, during the past 10 or 15 years?

Dr. THORP. Mr. Lubin, I suspected I might be led into the question as to what all this means from the standpoint of prices, and I have some material, though I must say that our work in the field of building material prices is by no means complete. As a matter of fact, I believe that much of the research for the Temporary National Economic Committee on this general subject is under your jurisdiction rather than mine; but I do have some material on building material prices in general, which I can talk about briefly as indicating varieties of behavior. I should like first to refer to a chart entitled "Trend of Wholesale Prices."¹

(The chart referred to was marked "Exhibit No. 915" and appears on p. 5232. The statistical data on which this chart is based are included in the appendix on p. 5554.)

Dr. THORP. On this chart the heavy black line represents "All Commodity Prices," and the dotted line represents the category "Producers' Goods—Building Materials." From our point of view the other lines on the chart, "Producers' Goods For Human Consumption," representing goods which are to be further processed before they become consumers' goods, and "Producers' Goods—Capital Equipment" can be disregarded. I want to concentrate on the first two lines.

One of the things which I think it is important to keep in mind is that the construction industry experienced a very severe decline in the depression, far more severe than that for industry in general. Having that in mind, it is of some significance to note that building material prices fell to perhaps 76, with reference to the 1929 level, while all commodities fell to about 62. While they came closer together again briefly in 1935 and in 1937, we have a very wide spread at the present time, when the building materials prices are perhaps 92 as against the general index of 78.

To me the significance of this situation is that, if one is thinking of comparative groups of commodities, it takes much more to buy the same amount of building materials than it would take to buy a fixed amount of other commodities. In terms of exchange among commodities, the building materials group has definitely moved up. It didn't decline as much in the depression, and it has held up much better during this latter period.

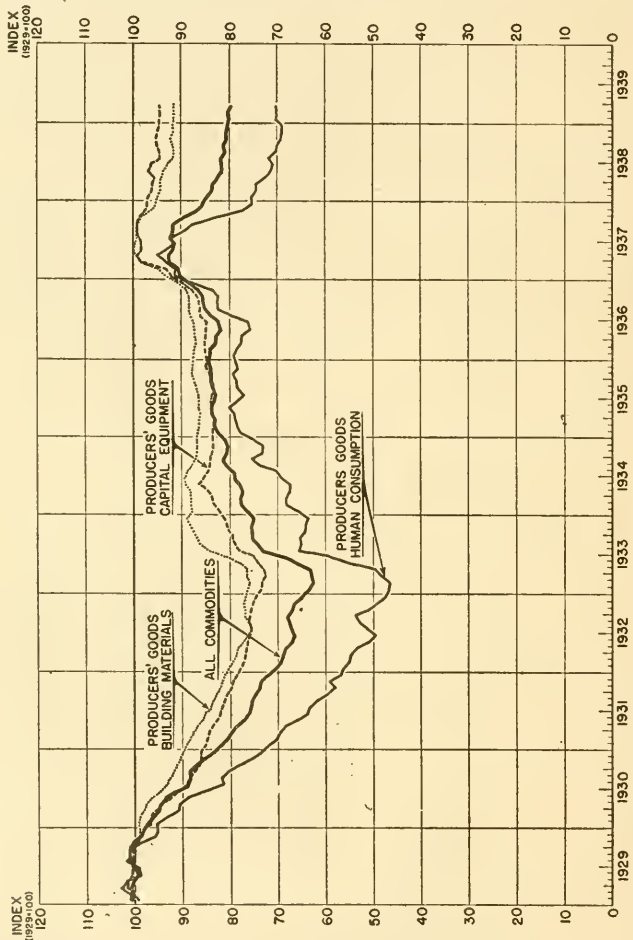
I think it may be worth while, also, to point out this extraordinary advance in building materials in the 12 months from the summer of 1936 to the summer of 1937, a period in which building materials prices moved up more than the prices of all commodities. Having once

¹ See also, in this connection, testimony of Dr. Théodore J. Keps, *infra*, p. 5446.

returned to their 1929 level, these prices have since declined relatively little.

Now, if I may, rather than stop with the picture of building materials as a general index, I should like to introduce into the record these statistics of certain specific building materials, using the Bureau of Labor Statistics data for their wholesale price movements from 1926 to 1939. This is important because we always get into trouble, I

EXHIBIT No. 915
TREND OF WHOLESALE PRICES
 UNITED STATES, JAN. 1929-MAR. 1939



SOURCE: NATIONAL BUREAU OF ECONOMIC RESEARCH

think, when we talk in general terms about such broad things as building materials or the construction industry.

The charts referred to were marked "Exhibits Nos. 916 and 917" and appear on p. 5233 and facing p. 5233. The statistical data on which these charts are based are included in the appendix on pp. 5555 and 5559.)

Dr. THORP. If one examines these charts for all building materials, one finds that the patterns have been very different.

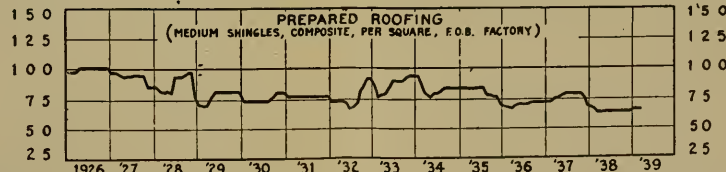
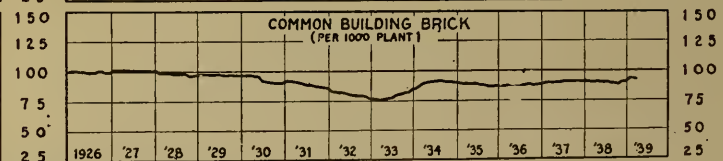
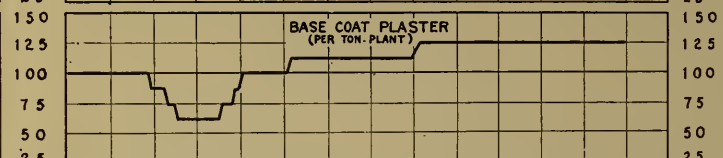
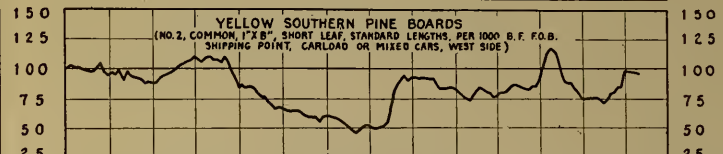
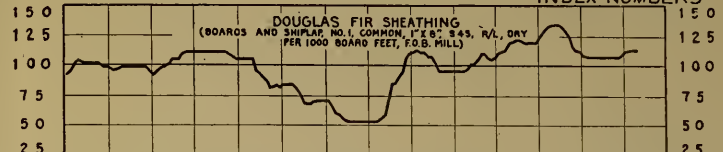
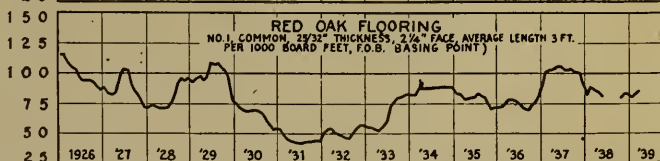
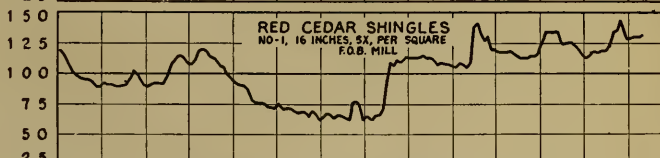
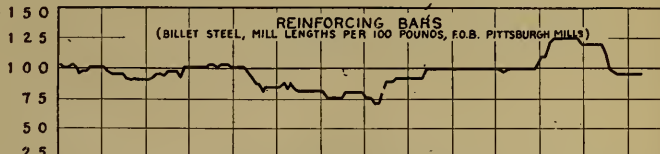
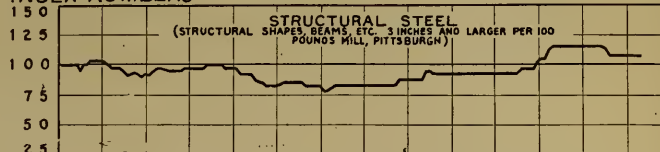
Certain of them have considerable sections where the price hasn't changed; as, for example, cement, structural steel, plaster, and so forth.

BUILDING MATERIALS

WHOLESALE PRICE MOVEMENTS OF SPECIFIC COMMODITIES 1926-1939

WHOLESALE PRICE
INDEX NUMBERS

INDEX NUMBERS, 1926=100

WHOLESALE PRICE
INDEX NUMBERS

Source: Bureau of Labor Statistics

D.D. 39-176

Certain others show considerable variation. Lumber, for instance, shows, I believe, the largest reaction to the recession, while the price of red-cedar shingles has moved up well above its 1926 base.

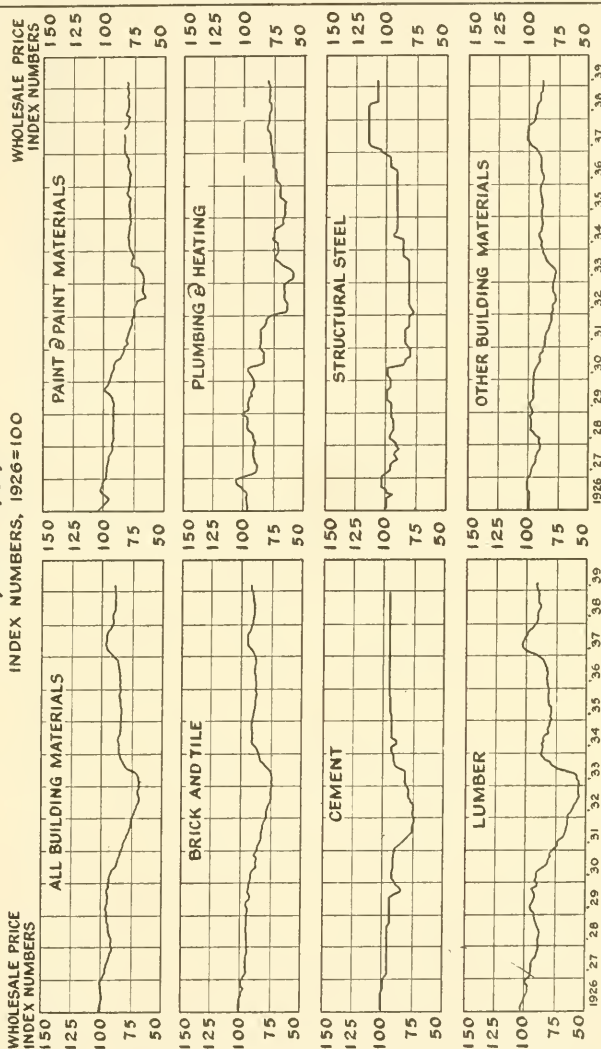
I think it is important to realize that among these different products there is no absolute identity of pattern. The variations appear to be

EXHIBIT No. 916

BUILDING MATERIALS

WHOLESALE PRICE MOVEMENTS OF SPECIFIC SUBGROUPS

1926-1939



Source: Bureau of Labor Statistics

DD 39-178

grouped. The lumber variations, for instance, are similar, though beyond that the patterns are quite different. But the net result—and from the point of view of the construction industry it is the net result which is important—the net result of these various patterns in these various specific materials has been to make building materials relatively much more expensive than other commodities.

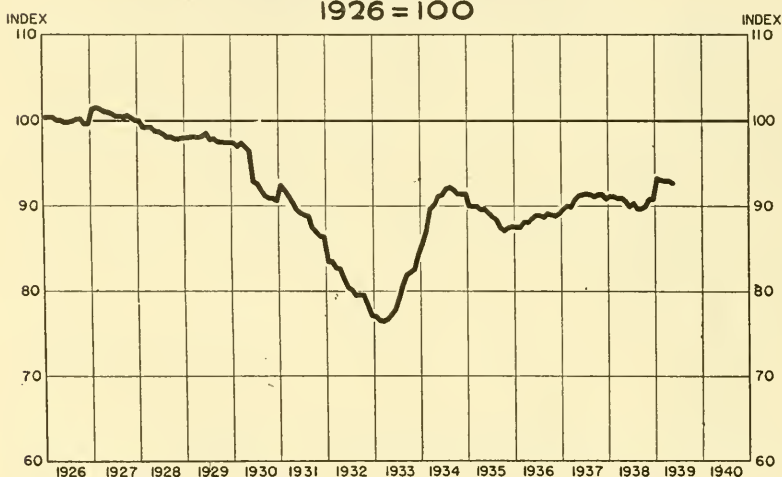
Dr. LUBIN. Could you, for the record, insert a statement as to the various building materials that are today selling at a level equal to or in excess of 1929? ¹

Dr. THORP. I should be glad to do that provided the Bureau of Labor Statistics would give us the data. [Laughter.] Can we consider it to be done?

I have one more chart which I think is rather interesting, a chart of "Common Building Brick," showing its variation throughout this whole period. I don't believe it is possible to keep in mind for comparison the exact variations of the general price index; but you may recall that while this follows fairly closely the general price trend in the earlier period, it is rather more level in this later period than prices in

EXHIBIT No. 918

WHOLESALE PRICES COMMON BUILDING BRICK 1926 = 100



U. S. BUREAU OF LABOR STATISTICS

general. Also, there is rather an amazing increase which appears at the end of 1938.

(The chart referred to was marked "Exhibit No. 918" and appears on this page.)

Acting Chairman REECE. That is one of the materials, as I remember, in which in certain marketing areas all of the materials were produced by four companies.

Dr. THORP. Yes. One of the difficulties about any measure of prices of common building brick is the difficulty always faced when a commodity does not have a national market, but operates in local markets. I believe from the technical point of view, it is extremely difficult to feel content with any measure of common building brick prices because of the wide variation among these different local markets.

Acting Chairman REECE. Are there any other questions?

¹ A statement of price increases in the most important individual building materials, 1929, 1936, and 1937, was entered later by Dr. Theodore J. Kreps, see "Exhibit No. 936," appendix, p. 5566.
See also data subsequently submitted by Dr. Lubin, appendix, p. 5588.

Mr. CHAWNER. I was wondering if the witness could prevail upon the Bureau of Labor Statistics to supply information on wage rates at the same time it supplied information on building material prices. There has been a fundamental difference in trends there too.¹

Acting Chairman REECE. You mean as compared to 1929?

Mr. CHAWNER. Yes.

Acting Chairman REECE. As cooperative as these two agencies have been I should think there would be no difficulty in getting these matters worked out.

Dr. LUBIN. We will be glad to do it.

Mr. CHAWNER. Could I ask a question about the matter of organization, the size of the enterprise? Dr. Thorpe pointed out the comparatively small enterprises in the contracting field, and the small amount of equipment which they use and the great variety of materials. Some people, such as Mr. Holden of the F. W. Dodge Corporation, have suggested that one of the answers to this question is to concentrate the building of housing units into large enterprises rather than continue on a small-scale basis as you have described. Would that be an appropriate suggestion from the point of view of cutting into this question of costs?

Dr. THORP. My function today has been primarily to describe the construction industry as it is, and not to offer any prescription. I think probably the answer has to come along a great many different lines. Undoubtedly one of the lines that is important is a greater tendency toward prefabrication, because that does tend to eliminate certain of these expenses and costs and the unevennesses which develop when work is so scattered around the country, and so erratic in its flow. I think you will have to put a construction man and an architect and such people on the stand rather than me to prophesy the future of the prefabricated house.

Acting Chairman REECE. Do you have any further questions?

The committee appreciates very greatly the presentation which you have made, Dr. Thorp.

(The witness, Dr. Thorp, was excused.)

Mr. O'CONNELL. I should like to call the next witness, Mr. William Stanley Parker.

Acting Chairman REECE. Do you solemnly swear the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. PARKER. I do.

TESTIMONY OF WILLIAM STANLEY PARKER, BOSTON, MASS.

RESIDENTIAL REAL ESTATE TAXES AS COMPARED TO COST OF MUNICIPAL SERVICES RENDERED

Mr. O'CONNELL. Mr. Parker, will you please state your name and present address for the record?

Mr. PARKER. William Stanley Parker, 120 Boylston Street, Boston.

Mr. O'CONNELL. Mr. Parker, am I correct in saying that you are a fellow in the American Institute of Architects, general chairman of the Construction League of the United States, member of the Public Works Committee of the National Resources Committee, past secretary of the American Institute of Architects, past president of the

¹ Subsequently submitted, see appendix, p. 5588.

Boston Society of Architects, a past member of the Massachusetts State Planning Board, chairman of the Boston City Planning Board, and a member of the board of governors of the National Association of Housing Officials?

Mr. PARKER. That is unfortunately correct.

Mr. O'CONNELL. Have I omitted anything you think might be mentioned as to your qualifications?

Mr. PARKER. No, sir.

Mr. O'CONNELL. That is enough.

Mr. Chairman, before asking Mr. Parker the few questions I wish to propound to him, I might say that I expect to ask Mr. Parker a few questions which will enable him to present to the committee some general observations that he wishes to make as to the construction industry generally, at which time I should like to ask him to refer to a study which was made several years ago in the City of Boston relative to the tax burden on various types of real estate. Due to the fact that we are a little late, I am afraid that his testimony will be a little briefer than we had anticipated, but we will try to cover the material which I think will interest the committee, as briefly as possible.

Mr. Parker, as I understand it you have some fairly definite convictions as to what obstacles there are to recovery in the construction industry, and preliminary to discussion of them, I should like you to explain to the committee what you mean by the construction industry and how it is broken down.

Mr. PARKER. I would like to present the construction industry to you, not in the detailed way that it has just been presented, but in four broad classifications which seem to me to have particular characteristics and varying characteristics, varying possibilities inherent as sources of trouble, sources of fluctuation and possibilities for stabilizing the construction industry.

Those four subdivisions, which are roughly equivalent if one eliminates the excess of residential construction during the peak years of the twenty's, I have called: public works, public utilities, non-residential private enterprise and residential private construction. Those are the four main categories, and I think that the further consideration of methods for stimulating construction and methods for stabilizing construction will be facilitated if they are focused on those four major classifications.

Mr. O'CONNELL. Mr. Parker, the major emphasis of this phase of the committee's inquiry relates to the private residential construction, so I suggest that we might pass fairly briefly over the other three elements of the construction industry, if you would care to discuss those briefly in order, and then we can defer the discussion of the residential field until last.

Mr. PARKER. First the nonresidential private construction followed the trend of all private construction. In fact, all the different categories of private construction followed very closely parallel lines. They all dropped in the depression from 80 to 90 percent of their volume. The figures that I am using are the Department of Commerce figures in a chart which I have filed with the committee, a cumulative chart which shows the total just under \$14,000,000,000 in 1927.

The nonresidential construction, it seems to me, is less needful of particular discussion because I think there is less that one can do in that by direct action than in any other field.

Mr. O'CONNELL. By nonresidential construction you mean industrial construction and business construction?

Mr. PARKER. Industrial and business and educational, institutional types.

Public utilities and public works are two very important phases which represent roughly in good times half of the construction industry and in bad times more than half. Public utilities and public works I think may properly be brought together in the diagrams because in both of those categories there is a definite public interest, although there is a different method of finance. Public utilities shrank during the years of the depression, from '30 to '33, to the tune of at least \$2,000,000,000 a year, and considerably more than that, about two and a half if the electrical equipment and power equipment were included. In that way, the operation of the construction and public utilities was a very important factor in aggravating the depression, cutting nearly 20 percent out of the employment in the construction industry.

Public works, which was in total at the peak somewhat more than public utilities, although not much more than public utilities if that added factor of plant was included, went up to something over three and a half billion, and then dropped to just under two billion by '33. The more significant part of that drop was in the nonfederal category of public works, which seems to me perhaps the most significant and most important category to consider. The total of non-Federal public works at the peak in 1930 was something over \$3,000,000,000, about three billion and a third, and it dropped in '33 to one billion and a third. In other words, that category also pulled \$2,000,000,000 out of construction in 2 or 3 years and created perhaps in the rough 2,000,000 unemployed that theretofore had been normally employed in the performance of private enterprise, servants of private enterprise, the employees of private enterprise serving local municipalities and States in the field of construction.

The most significant part of the chart to me is the line indicating the development of the financing of local public works since '33, which on the dollar volume has lifted only from about one billion two hundred twenty-five million to one billion and a half, a very slight increase compared to the increases in the other major sections of the construction industry; and the fact that our States and municipalities have practically remained at the low level of activity so far as their financing of construction was concerned, has remained one of the perhaps most important trials and difficulties of the Federal Government in its program of endeavoring to stimulate construction and offset the depression in the construction industry. That is the field in which, it seems to me, in the future most important concentration of attention should be given—a very brief indication of a theory—to the stabilizing of public utilities and local public works on a policy of steady development and with reserves of finance that will make that possible.

Heretofore local public works have fluctuated exactly parallel to private enterprise. It seems to me we must expect private enterprise to fluctuate in the temperamental way that it does on the basis of self-interest. Public works is the public business and it seems to me they should be administered in the public interest, and the public interest is certainly not to have them add to the difficulties of fluctua-

tions of private enterprise, but at least tend to steady their own operations so as not to add to the difficulties which the Federal Government will find itself burdened with in trying to offset depressions in private enterprise.

Mr. O'CONNELL. Let me see if I understand you. As I understand you, you couple public utilities and public works on the theory that they are both affected with the public interest and that in normal times public works and public utilities construction has constituted about 50 percent of all construction, and that it is your view that stabilization and long-range planning of that 50 percent of the construction industry will help to stabilize the industry and to mitigate the fluctuations in the other 50 percent about which little can be done in terms of stabilization, is that correct?

Mr. PARKER. Yes; that those two are the only two sections in these four sections of the construction industry that are vested with a definite public interest, and that steps should be taken to administer those in the public interest, and that if that half of the construction industry can, by long-term planning and controls which now exist in both of those phases to some extent, be stabilized, the fluctuation of private enterprise in the other two sections will be very greatly reduced because undoubtedly the shrinkage in private residential construction would have been very greatly reduced if the fluctuation had not occurred in employment in the fields of public utility construction and public works construction which threw perhaps 4,000,000 people out of work and undoubtedly affected the market for private residential construction.

Mr. O'CONNELL. If it meets with your wishes, I should like to have you discuss with us briefly the fourth category of construction, namely, private residential construction. As I said before, that is the field which the committee is most interested in at the time, as the field which holds the greatest possibilities for expansion by the encouragement of private capital on an investment basis or otherwise. Have you any general comments you would care to make about that field?

Mr. PARKER. I think perhaps the field might be broken down desirably into two main categories of multiple urban housing and the single family suburban housing. First in the multiple urban housing, the speculative demand will take care of apartment houses in the urban areas. The difficult problem there is in the depreciated areas of our larger cities. The less depreciated areas should be handled by private enterprise if possible, but they are full of difficulties on account of the multitude of ownerships, the separate controls, the difficulty of assembling the properties into a neighborhood which will permit a consistent, protected development, and the fact that even in any such development it is almost essential that a neighborhood be redeveloped for a higher rental group in order to take care of the cost of the development, that it cannot be redeveloped to take care of the same level of rents that are now occupying the depreciated building, and it is not always easy to find the areas that permit that shift in tenancy, bringing in the new higher rental group to take the rehabilitated structure. It is a most difficult field to work in. Various suggestions have been offered, in almost every case I think based upon neighborhood controls, in some cases, after a reasonable amount of organization, giving to such groups on a limited dividend basis some public opportunities and responsibilities to take by eminent domain and to tax. They become

immediately extremely complicated mechanisms to bring about development of neighborhoods, and so far as I know, practically nothing of that sort has actually been accomplished.

In the lower rental, more depreciated, more obsolete sections of our larger cities, the situation is even more difficult and even less likely to be handled by private enterprise, and that gets into the field where apparently public operations, with some form of subsidy, the U. S. H. A. program, appears to be about the only solution of those sections. The cost of taking the existing structures and throwing them away is something that private industry doesn't face with equanimity, and the communities have been certainly to a considerable extent responsible for creating the conditions of structures and density and slum conditions that have been built up, and they have taken the taxes from those conditions of over-congestion that have resulted in very undesirable community conditions, and undoubtedly it is becoming evident that it is in part a public duty to carry some of the burden of costs involved in throwing away and reconditioning those depreciated and slum areas.

Mr. O'CONNELL. Would it be fair to interpret what you have said as indicating that the problem of what is generally referred to as slum clearance and providing adequate housing facilities for the lowest sector of our population, is something that we cannot hope to meet with private capital at the present time?

Mr. PARKER. I should say so. I see no other way.

Mr. O'CONNELL. Moving a little higher into what is referred to as the middle income group, which is the group which we have discussed at great length before this committee—by that I mean families having an income of more than \$1,000 a year and less than \$2,000 a year, that is an area which according to testimony before this committee has not been reached to any appreciable extent by private capital at the present time, and at the same time there is substantial, some people say tremendous, unsatisfied demand for dwelling accommodations in that area—have you any feeling as to what the future holds or what can be done to bring about additional activity in that area?

Mr. PARKER. I think that field is of course very seriously affected by the unemployment and the relief situation. The largest section of the single-family field is certainly houses costing \$5,000 and under. Now all the unemployed families, practically speaking, are in that category, and constitute a very definite drag on the business of building houses in that category for sale.

Mr. O'CONNELL. As a matter of fact, Mr. Parker, I believe the statistics are generally to the effect that even eliminating the unemployed and taking those persons who are gainfully employed, a majority of the family incomes in this country would probably fall in the range of persons who cannot afford dwelling accommodations costing as much as \$5,000.

Mr. PARKER. I think that is true.

Mr. O'CONNELL. So that excluding relief people and unemployed people and confining ourselves to those people gainfully employed, you would have a very substantial market which is not being met by the construction industry at present price levels.

Mr. PARKER. I was referring of course to all of the families with \$5,000 and less, and it seems to me the drag there will exist in various levels in that group, due to the unemployed situation.

So far as houses built for sale are concerned, all those families, however, are susceptible to rental housing, and they are all renting housing, and if housing could be built for rent, the drag on the market in that field would not be the same and it would be possible to provide housing that would appeal even to the families that now have reduced incomes, due to some element of unemployment within the family. It seems to me perhaps the most unfortunate phase of the small-house market is that it has had no interest whatever in the part it might play, except in the large apartment houses on a single plot of land, to provide rental housing for those of the lower income groups, and that is the great need, in my mind, to find some way to interest equity money in the production of long-term protected neighborhoods in rental housing.

Mr. O'CONNELL. Mr. Parker, that interests me. There was quite some discussion before the committee several times on the encouragement of home ownership as distinguished from the encouragement of rental housing for persons in the middle income group. One or more of the witnesses took the view that the future of the construction industry for this middle income group was largely in the rental housing field, large scale housing projects to be rented to persons in this income group. Another witness felt that everything should be done that could be done, to encourage home ownership as distinguished from rental housing. Have you any definite conviction or belief as to that general proposition?

Mr. PARKER. I think that home ownership is a luxury that should be enjoyed by those who can afford it and who have the reasonable assurance of sustained income in that locality. Unless a family is reasonably sure that they can live in that locality for a substantial number of years with a sustained income, home ownership seems to me a somewhat hazardous operation because a forced sale of a house, with the family having to move quickly, without much background and not being ready to carry the equity in it for a long time, is pretty certain to involve a pretty considerable cut in the equity of the property and therefore a financial sacrifice. It seems to me that a great many families, probably due to the home-ownership campaign, all of which is desirable for those who can afford it—that this campaign has led a good many who can't afford home ownership and who haven't the security that warrants it, to attempt it, and I think that has undoubtedly been unfortunate for a great many houses and neighborhoods. I think there is a very great need for rental housing in neighborhood units, held for permanent ownership by housing corporations making that a business and providing a diversified background of housing investment back of the capital funds of the corporation.

Mr. O'CONNELL. In other words, as I understand you, while you would have no quarrel with the concept as to the social desirability of having every man own his own home, you would question the economic feasibility of encouraging home ownership among persons who do not have stability of employment and who would be in a position possibly of putting their small amount of savings into an equity on a house which they might lose if they lost their employment.

Mr. PARKER. Yes. There are many difficulties of course in developing rental housing that might be touched upon, if you desire to go into that at this time.

Mr. O'CONNELL. You might mention a few of them.

Mr. PARKER. The problem being that if you are going to build neighborhoods of small units of housing on a rental basis, it is necessary for the corporation to build on a large scale. It is necessary for them to build better than the speculatively built house in the same general market, because the speculative builder passes the maintenance on to the purchaser, and in the case of large scale rental projects, the owner has to maintain his own house, so he will be forced to build better. In many cases, in most cities that I am familiar with, wages are not a particular factor in the small house field because they are generally, even in the vicinity of a unionized municipality, built on nonunion wages, substantially below the union rate.

A large scale operation, however, in that field would probably be forced to adopt the union labor rates. If that were necessary, if that were accomplished, it would create two handicaps that would make it extremely difficult for a rental project to earn its keep. One is, it would have to be built better in competition with the speculative builder, and the second is, it would have to pay more wages. Therefore, it is essential as an outlet to that type of project, in my mind, that agreement be reached for special wages for low-cost housing, and for special rates based upon longevity of guaranteed employment, whether it is an annual wage or some longer period than the day-to-day employment at the normal rates. And I think perhaps recognition could be given and could be agreed upon that if a company building large-scale, low-rental housing had business in the community which could guarantee to employ mechanics, say, for 3 months at a time or 6 months at a time, a preferential wage in exchange for that longer term of employment would permit the saving and the economy that I think would be essential in developing adequately the large-scale rental projects.

Mr. O'CONNELL. That whole problem of the per-hour wage and the very unsteady employment in the building trades as against a steadier employment and something comparable to the annual wage is a very difficult problem, is it not?

Mr. PARKER. Very difficult.

Mr. O'CONNELL. I have heard nothing that seems very definitive in the way of an answer to that problem.

Mr. PARKER. A great deal has been discussed in regard to the annual wage. The only answer that I know is somebody on the other side of the fence agreeing to pay the wages. It has frequently been put up to the labor unions in the past that if they would reduce their rates 25 percent, there would be so much more business they would make more money in the end.

I know of one case a good many years ago in St. Louis. It was a question whether with leveling of wages owners would guarantee the additional amount of employment. If not perhaps it would be better, the mechanics felt, to take their present rate.

Mr. O'CONNELL. On that same point, I think Dr. Thorp indicated the difficulty in persuading any particular group or any persons representing any particular element in construction cost. It is very difficult to persuade them it is to their self-interest to take a substantially lesser price for their product either in material or labor, because it is such a comparatively small part of the total cost that the increased demand would not take place.

Mr. PARKER. And in the large centers seasonal unemployment is a serious factor. Our studies in Boston back in '21 and '22 showed the average building mechanic got about 3 months' vacation without pay, and that necessarily affected their impression of what they ought to get per hour while they were working by and large during the year. It was said they were paid by the week and lived by the year, and it was necessary to get a higher union wage in an industry that couldn't guarantee steady employment. The only answer to that is individual owners, individual corporations that can guarantee employment, and it is a settled fact in the maintenance crews of department stores and various other kinds of maintenance work that that agreement for long-term employment is met with a lower wage; it always has been so, it is not a new principle. It would merely mean applying it particularly to assist this field of large-scale rental housing which I think is absolutely dependent upon some type of agreement of that sort.

I don't believe that it can develop otherwise, because I think any corporation without a definite agreement would be stalled at the start and never would be able to get started.

Mr. O'CONNELL. Also, it would seem to me you have indicated the possibility of achieving anything in the way of steady employment or annual wage depended upon large-scale rental housing.

Mr. PARKER. The large-scale operator is the only one that can guarantee steady employment, and I believe it would be an excellent idea if each large city had one large housing corporation, organized as the Bridgeport housing corporation was organized before the war, to provide low rental housing in that metropolitan area. I think it would be highly desirable, but I think these other steps in regard to wages would be essential if such a thing could be made practical, because they will be in competition with the rentals and other factors involved in the speculative building field.

Mr. O'CONNELL. If you have nothing more to say on that particular point, I should like to refer to the work that you did or were connected with in Boston in making a survey of the city of Boston with a view to ascertaining the tax burden and the areas which bear the greatest share of the real estate tax burden in that city. Will you take a few moments just to tell us what brought that study about and what it involves and what its general conclusions are?

Mr. PARKER. The study was stimulated by a study made by Howard Whipple Green in Cleveland, which, however, was a study of one slum area. It seemed to me indefinite because while it said that area produced about \$250,000 in taxes and cost the community about a million and a quarter annually to run, that it didn't indicate to me what those relative figures were in other typical sections of the city. I thought perhaps all the residential areas were in the red. We made a tentative study of six areas in Boston to test that and found such a wide range of results that we applied it later to the entire city, in which there are 127 census tracts. We used the census tract as the basis, and we appraised for each census tract the taxes and fees collected and then on as careful and logical a basis as possible, we appraised the share of the municipal expense that should be allocated into each of those census tracts. That is in many ways necessarily a somewhat arbitrary allocation. So far as we could, we allocated the costs actually on a service basis, street cleaning by the area,

or running feet of the street; we allocated carefully the types of collection of garbage, and so forth. The schools we could, of course, allocate into the residential areas according to the residence of the pupil and according to the grade of school that they occupied. The overhead expenses were more difficult. Police and fire, for instance, constitute a double factor, a readiness to serve and the service, and lacking any fairer method in those cases, we divided the cost in two and assessed half the cost as a readiness to serve. In the fire department this was on the assumption that if the city was as fireproof as we could probably make it we probably wouldn't cut the service more than in two, because we still would need the protection to life. The other half was allocated on the basis of where fires were and the police service actually rendered in the different districts.

When that was accomplished, we found that 78 percent of the area of the city was in the red, and about 22 percent was in the black.

Mr. O'CONNELL. By being in the red, what do you mean?

Mr. PARKER. Meaning the census tract produced less in taxes than it cost the city to run it, in the colloquial sense. That is largely due to the fact that the two major items in the municipal budget are schooling and welfare, and those all had to be allocated into the residence areas, of course, where the individuals that received the welfare and received the schooling live, so that is the place where we put it. That meant that in that 78 percent of the area which covered almost all the residence area, except a very few residential areas, was also included half the industrial areas or more than half.

They built up, out of a budget of 65 million for the city as a whole, or thereabouts, a deficit of eighteen million over and above the taxes that they produced, which had to come out of the excess profits of the taxes in those congested areas, the downtown central business area, and the high rental residence areas that didn't send their children to the public schools, and that had very many fewer children per dollar of property value. There was only one suburban residential tract that was paying its way, and only just doing so. So the study showed that the downtown business area which covered about 2 percent of the tract of the city produced eleven out of the eighteen million deficit to carry the expenditures in other areas, and the balance was produced in a few other districts of the high rental residence areas that I have suggested. This pointed to the extreme importance of protecting that basket of eggs that were carrying all the burden, the downtown high value areas. It showed, of course, that it was a good deal more expensive to service individuals than to service buildings, and, of course, the service costs due to welfare and schooling are necessarily charged into the residential areas.

To show the effect of the balance in the low rental areas, the deep red in the map which you have shows the concentration, of the net loss, and they are all the concentrated poverty areas, the slum areas of the city.

Mr. O'CONNELL. Have you any figures showing the relative taxes against the cost of service?

Mr. PARKER. Roughly speaking, the low depreciated slum areas cost the city about \$4 for every \$1 that they paid [providing taxes are paid] and that includes the taxes from the retail business properties in those residential areas, because they are all mixed in with the residence areas in the census tracts. Each census tract is listed

according to its major characteristic, 70 percent occupancy, so there is a substantial amount of taxes coming from movie houses and retail trade establishments in those various residential areas.

Dr. LUBIN. These figures then are figures which show the actual amount spent by the municipality in maintaining those areas as compared with the actual amount paid in direct taxes to the municipality from those areas.

Mr. PARKER. Yes.

Dr. LUBIN. They do not, however, include the taxes that these same people pay when they buy things downtown—

Mr. PARKER. Oh, no.

Dr. LUBIN. Which in turn go back to the city.

Mr. PARKER. Oh, no. This is an analysis of the city's budget, the books of the city, how the different census tracts stand in the money that they provide directly from the property tax and personal tax, poll tax, and the automobile and the liquor licenses, and those are allocated into the census tracts.

Mr. O'CONNELL. I know it is very difficult to generalize it, but thinking of real-estate taxes as being one of the possible deterrents to construction in the residential field, if we take the city of Boston as an example, and use the test that you have used as to the cost to the city of services, and balance against that the taxes collected from the residential areas, it wouldn't appear as though those areas were paying more than their proportionate share, as much as they should.

Mr. PARKER. The thought that appeals to me there, if you consider the lower cost housing, let us say that would be assessed at \$4,000 per housing unit, and take a \$40 tax rate, you have got a tax from that piece of property of \$160, and that family, except for these taxes which Mr. Lubin has referred to from purchases of materials, the other taxes, most of which, however, don't go to the community but go to the Federal Government, that \$160 represents about the entire amount that that family pays in taxes for the support of the city, perhaps \$14 a month, and I am wondering if that is an excessive fee for that family to pay for schooling, hospitalization, street cleaning, fire protection, police protection, and all the other services of the city. That family probably would not pay much of any income tax to the State.

Mr. O'CONNELL. Assuming the validity of the method of allocation of services and assuming that the city is providing services which it should not be expected to provide, and taking Boston as an example, the residential property is not bearing more than its share?

Mr. PARKER. It is bearing, of course, much less in taxes than it is getting in service from the community, but, of course, it isn't necessary to assume that it should pay on the basis of this allocation the full amount allocated. That is an arbitrary basis and these figures must be used with caution. It is not proper to say in the slum area, for instance, that because the city gets \$250,000 in taxes, and it costs the city a million a year, that if you rebuild it with a housing project, you will save \$750,000 a year, of course, because the expense of that tract is largely the expense of poverty, of people that cannot afford to pay for the services that the city requires as an essential of the community life; so that it is quite improper to use these figures as an argument of the savings that will accompany reconstruction of the slum area. There will be the imponderable savings of hospitalization

and crime and police and fire that are undoubtedly caused by the bad fire conditions and bad housing conditions, but those are the more difficult elements to figure but they are hidden in the community costs.

Mr. O'CONNELL. I should like to offer this report to which Mr. Parker has referred and suggest it be filed with the committee. There is a lot of interesting information in it that we haven't had an opportunity to cover.

(The report referred to was marked "Exhibit No. 919" and is on file with the committee.)

Mr. O'CONNELL. I have no further questions to ask of Mr. Parker.

Acting Chairman REECE. Are there any questions by the members of the committee? If not, we thank you very kindly, Mr. Parker.

(The witness, Mr. Parker, was excused.)

Mr. O'CONNELL. I should like to call Mr. Gerhardt F. Meyne.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give in this proceeding shall be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. MEYNE. I do.

TESTIMONY OF GERHARDT F. MEYNE, CHICAGO, ILL.

COLLUSIVE PRACTICES IN THE BUILDING TRADES IN CHICAGO

Mr. O'CONNELL. Will you state your name and address and occupation?

Mr. MEYNE. My name is Gerhardt F. Meyne; my business address, 7 South Dearborn Street, Chicago; and I am a building contractor.

Mr. O'CONNELL. What type of construction work does your company undertake?

Mr. MEYNE. We do heavy construction to some extent and also do considerable reconstruction and reconditioning, industrial work, and occasionally some residences.

Mr. O'CONNELL. One general question, Mr. Meyne—would you be in accord with the view that has been quite generally expressed before this committee that additional expansion in the construction industry will flow to a large extent from a removal of the deterrents which at present unduly increase the cost of such construction, and that a reduction in such costs would stimulate additional demand?

Mr. MEYNE. I certainly do.

Mr. O'CONNELL. As a contractor, Mr. Meyne, would you care to state to the committee what you consider the principal deterrent to recovery in the construction industry in the area in which you operate?

Mr. MEYNE. I would say that the chief reason why building is being retarded is that the builder is unable to produce his product in line with the other fellow's ability to buy or rent. The tenant's pocket-book doesn't seem to be able to cover the requirement to give a reasonable return on investments.

Mr. O'CONNELL. Well, what specific items of cost would you consider appropriate to consider as ones which have not been brought down but which might be?

Mr. MEYNE. Well, I consider the cost of materials, I think, the cost of transportation, the cost of fuel, which go into the manufacture of material, labor, and so forth.

Mr. O'CONNELL. That is practically everything. Let us take some of them specifically. You mentioned material costs. Have you any views as to whether material costs in general are too high or anything specific to give us on that subject?

Mr. MEYNE. Well, general material costs are fairly high. They are high chiefly because of high transportation costs, as Dr. Thorp brought this morning in a discussion here in which he showed that the freight, for instance, on the rough material, sand and gravel, was 56 percent of the cost of the material, and when I first started in business, back in 1909, and 1910, we used to buy a yard of gravel delivered on the job, for a dollar and a dollar ten cents, and today the freight-rate transportation alone is a dollar six cents.

Mr. O'CONNELL. Would that be typical, or would that be attributed to the fact of going farther away to get the material?

Mr. MEYNE. Well, no, the sources of material are the same sources of material, Lake Michigan is the same, same Gainesville, same Wisconsin.

Mr. O'CONNELL. Are there any other things you think unreasonably affect the price of materials as well as transportation?

Mr. MEYNE. I think the labor monopolies that go into the making up the cost of material from the very first pick and shovel to the last delivery, and installation in the building, all have to do with the extraordinary cost of building.

Mr. O'CONNELL. Could you be a little more explicit on what you mean by labor monopoly? I am not clear.

Mr. MEYNE. By labor monopoly I mean, generally speaking, a labor union council, as we understand it, and known as the Building Trades Councils.

Dr. LUBIN. Are those people engaged in manufacturing labor materials?

Mr. MEYNE. He asked me the question, What was generally the high building cost?

Mr. O'CONNELL. You said materials cost. You mentioned high materials cost. I was going to refer to labor after you had discussed materials. Now, in connection with materials, you referred to the high cost of transportation, which Dr. Thorp also mentioned this morning. Are there any other factors which seem to you to have unreasonably increased the cost of materials?

Mr. MEYNE. Cost of fuel is unreasonably high in comparison to former years. Back in '16, '18, and '20, and '23, and '24.

Dr. LUBIN. Do you have any material showing what has happened to the actual fuel cost per unit of production? All the data we can find show us, determining actual cost per pound of coal used for horsepower generally, have been going down steadily and that is why people are not buying so much coal as they did. The efficiency of the use of coal has been stepped up so far, we find in many instances, while the price of coal has gone up, the cost has gone down in terms of productivity.

Mr. MEYNE. I can't give you that but I do know that the cost of coal is a decided factor in it, because we used to buy coal in '12, a dollar five at the mine, and in '38 we paid two and five in the mine and the freight rate I can't give to you at this minute, so the coal to us now is quite an item in the manufacturing of the material.

Dr. LUBIN. What happens to its efficiency, the efficiency of the boilers?

Mr. MEYNE. They have been improved and also cost more. You mean in the line of B. t. u.'s?

Dr. LUBIN. Yes.

Mr. MEYNE. Efficiency of B. t. u.'s there is some merit to it, but it isn't sufficient, in my judgment, to offset the high cost of fuel and the transportation involved in fuel.

Mr. O'CONNELL. In view of the fact that you are primarily engaged in the construction industry, perhaps we had better confine ourselves to things with which you are more familiar in your day-to-day work, and another thing you mentioned was that one of the difficulties in expansion in construction industry was labor cost, and then you referred to labor monopoly. Would you explain what you have in mind there?

Mr. MEYNE. What I had in mind in the labor monopoly is chiefly, particularly to building-trades council.

Mr. O'CONNELL. What are building-trades councils?

Mr. MEYNE. Building trades council is a council of a number of unions where they are controlled by a group of men or group by their delegates, which is headed into committees, and those committees usually control the entire labor policy in the building industry of the city.

Mr. O'CONNELL. Well, now, do you mean there is anything inherently wrong in having labor organizations such as unions and in turn to have these organizations organized into building-trades councils?

Mr. MEYNE. No; I certainly do not. I certainly do not think so, that there is anything wrong in having the labor unions, but where the difficulty comes in is that the leaders of the labor unions are so apt to develop into racketeers.

Mr. O'CONNELL. Well, possibly we would get along a little more rapidly if you were to give us something a little more specific in terms of your experience.

Mr. MEYNE. You are meaning to ask me, as I get it, if a labor union is a racket, how it gets that way. Is that it? [Laughter.]

Mr. O'CONNELL. Possibly we might say that. I understood you to say that unions were all right, but that there was a tendency in unions to have policies in some instances controlled by persons whom you referred to as racketeers. With that as a starting-off point, I wanted you to be a little more specific and tell us what you mean by the term "racketeers," and how the unions are used by these racketeers for unsocial purposes.

Mr. MEYNE. Well, I just wanted to say this, that in order—the labor leaders usually become leaders by being elected and playing politics. Now, they usually are constantly reelected due to the apathy or lack of understanding of the average union member. Now, what makes them become a racketeer is the fact that he is not content with merely being satisfied with the wage or salary that he gets from the union, but he devises ways and means whereby he can impose on the building public other income besides his regular salary.

Mr. O'CONNELL. Well, you mean, then, that in cases of the type to which you refer, the labor leader would in effect betray his union members and do things incompatible with their best interests?

Mr. MEYNE. That is right.

Dr. LUBIN. Would you be willing to generalize and say that is true of labor leadership as a whole or in general?

Mr. MEYNE. No; I wouldn't generalize that as a labor situation as a whole. I am talking specifically as I know it in the building industry.

Dr. LUBIN. Would you think it was typical of the building industry as a whole?

Mr. MEYNE. No; I only know it as I know it in Chicago, and as I have read about it in other large cities of the country.

Dr. LUBIN. Would you say that it was typical of labor leadership in Chicago?

Mr. MEYNE. No; but I would say that it was typical of many of the building industry leaders of Chicago.

Mr. O'CONNELL. You first referred to a building-trades council. Does that involve a combination or group of combinations in the building trades?

Mr. MEYNE. Yes.

Mr. O'CONNELL. Is that the group to which you are referring?

Mr. MEYNE. Yes.

Mr. O'CONNELL. Could you be more specific than you have been as to the activities of the labor leadership in that particular group? Possibly that is a rather difficult question.

Dr. LUBIN. I think, Mr. O'Connell, it is an important question. The charge has been made that this group has been dominated by racketeers, and I think it is important that specific instances be put in the record.

Mr. O'CONNELL. If Mr. Meyne can answer the question, I wish he would.

Mr. MEYNE. Well, let's see. I have a newspaper clipping where a school building was put on a strike only a few months ago, where the contractor's bond was being challenged, or whatever you call it, because the stonecutters' union demanded the cutting of the stone, which was shipped up from Bloomington, or from the oolitic stone center in Indiana, to Chicago. Now, the stone for years, on decent-sized jobs, has been shipped from Indiana to Chicago, and been set and handled by Chicago people.

Now, the stonecutters demand the cutting of that stone be done right in Chicago rather than in Indiana. Now, your W. P. A. money is going into this particular project; it is money from all over the country, yet our particular stonecutters are demanding that this work be awarded to them. That is what I call racketeering.

Mr. O'CONNELL. If I may say so, I think that is a little different type of situation than I thought you had in mind when you referred to racketeering. That is a condition which I think we will refer to a little later, and it involves, as I understand it, a general attempt on the part of laboring people to preserve for themselves, and I think a certain amount of it is legitimate, as large a share of the work in connection with the particular activity of the building as is possible.

Now, racketeering, it seems to me, involves a much more nefarious concept. I wish you could be a little more specific. If that is racketeering, it isn't what I thought of as racketeering, frankly. You had used the word racketeering in connection with the practices of labor leaders.

Mr. MEYNE. Who brings the attention of the situation to the labor trades council, but the labor leaders?

Mr. O'CONNELL. That is undoubtedly true, but I still was under the impression when you started that by referring to racketeers you

were thinking of practices indulged in by labor leaders which were clearly against the best interests of the group that they represent in their community.

Mr. MEYNE. All right, I will have to go back a little further. I didn't know that this questioning was going to take a turn in this particular kind of way. Probably it is my fault.

In one of my buildings—this was quite a few years ago—certain boilers were to be made in Waukegan, Wis. Those boilers were shipped. The day they arrived, a strike was called. Thirteen or fourteen trades were called out. There wasn't any shop big enough in Chicago to manufacture those boilers.

Somebody claimed that these boilers were made by nonunion men. They were, I later found out. It took us about 15 weeks to get that strike settled. The fact that money was passed was evident, and quite a few of those men were indicted, later pleaded guilty, and were fined. Now, is that racketeering? That is what I would call racketeering in that sense.

Mr. O'CONNELL. You think that is racketeering.

Mr. MEYNE. That is racketeering.

Mr. O'CONNELL. Have any other instances that you would care to relate, some that are more current, that would reflect what you are referring to as racketeering? Frankly, the only reason I have for bringing it up is I hadn't realized we were going to discuss labor leaders as racketeers, but since it has been mentioned, I think with Dr. Lubin it is only fair that you should tell the committee specifically whatever you can recall of practices that involve that general principle.

Mr. MEYNE. You go along, and in the meantime my memory will come back to me. I am not used to being on the stand, as it were, and if you will go along and carry on your line, I will guarantee my memory will come back and I will be able to recite probably quite a few of them.

Mr. O'CONNELL. All right. Now, from your knowledge of the construction industry and the building industry generally, can you tell us anything about your view as to the labor supply in the various trades and whether or not it has been in recent years maintained?

Mr. MEYNE. Well, the labor supply has not been so very well maintained. In the present abnormal times, there are sufficient mechanics, but the average age of the mechanics is about 52 years in the building industry. Of course, in the years of the immediate past, '33 and '34, there were quite a few. In '36 and '37 it was rather difficult to get skilled men who had a knowledge of the job and knew what it was all about.

Mr. O'CONNELL. When you say that the average age of building tradesmen is now about 52 years, I take it you mean that it should be less, and that new apprentices and people are not coming into the field. Is that it?

Mr. MEYNE. That is what I mean. I mean the apprentice situation is such that we are not training any apprentices in the building industry.

Mr. O'CONNELL. Before we go any further with that, when you refer to the building industry, I take it that you are referring primarily to a situation that exists in and around Chicago where you are most familiar with it.

Mr. MEYNE. That is right.

Mr. O'CONNELL. And that we must not generalize too much from what you say or are you of the opinion that the situation that you describe as existing there would be of general application to the country.

Mr. MEYNE. No; it is not a general application to the country, but it is generally in large cities.

Mr. O'CONNELL. Now could you tell us something about the training of apprentices, as you understand it?

Mr. MEYNE. Well, there is comparatively little, if any, training of apprentices in the building industry. The unions, of course, are fairly liberal in the number of apprentices that we are able to take on, but we can't criticize them on that score, that we can't get enough boys and will not take enough boys, but the conditions that they impose of bringing up an apprentice is such that it is practically impossible, certainly unprofitable. The starting pay of an apprentice in our building industry is 25 percent of the original mechanic's pay, which in most trades would be somewhere around 45 or 50 cents an hour to start with.

In the second year his pay is increased, and the third year it is increased some more, and in the fourth year it is about 75 percent of a mechanic's pay, but the condition that additionally is imposed is that you have to keep this apprentice on your pay roll constantly. You have to guarantee him employment and you have to send him to school 1 day a week. Now the mechanic only works 5 days and you send your boy to school 1 day, so he only works 4 days. By the time you are through why he has cost you more than the hiring of a mechanic.

Besides that, he is spoiling materials and takes up the time of the foreman and of the other mechanics, and therefore we just don't take them, and I suppose that outside of probably where we ought to in Chicago be having somewhere around six or seven hundred, we probably have only 40 or 50 apprentices in the various trades.

Mr. O'CONNELL. If I understand you correctly, then, it isn't a situation in which the unions——

Mr. MEYNE (interposing). The union is not to blame.

Mr. O'CONNELL (continuing). Discourage having apprentices enter the field, but rather that the employers do not feel it profitable to train apprentices, and I suppose it is also true that there is no other way of training apprentices than to have them employed on the job?

Mr. MEYNE. Yes; there is.

Mr. O'CONNELL. Is there?

Mr. MEYNE. You can train apprentices, some apprentices, in certain trades, by intensive training. It doesn't take 4 years to always make a mechanic. He may not have structural knowledge by intensive training. You take a boy out of high school and you can make a mechanic out of him very much quicker than 4 years.

Mr. O'CONNELL. But traditionally, I take it, the method has been training apprentices by actual work on the job, hasn't it?

Mr. MEYNE. Yes; for example, when labor was scarce back in '23 and '24, we made bricklayers in 6 months, pretty good bricklayers at that; and they didn't have construction knowledge, but they could lay corners and they could earn a day's pay. We made plasterers in 9 months; we made tile setters in 6 months, by giving them intensive training in the school.

Mr. O'CONNELL. That would seem to indicate, too, that if there were substantial expansion in construction that we wouldn't have a serious and long-continued shortage of skilled workers to contend with?

Mr. MEYNE. If unions would permit us to give them intensive training rather than traditional 4 or 5 years, why it wouldn't take long to make mechanics in a number of the trades. You see, a boy of 18 can take knowledge much faster than a boy of 12, when we started.

Mr. O'CONNELL. Well, generally, I take it you feel that not enough young people are in a position to learn to enter one of the building trades?

Mr. MEYNE. Well, that is another thing. You see it is rather difficult to enter the building trades. The initiation fees in the building trades are rather high; the cheapest initiation fee in Chicago that I know of in the building trades is \$100. From that it ranges up to \$500 to become a member of the union. The laborer, common laborer; must pay \$5 initiation fees, and the dues range from \$2.25 a month to \$6 a month, plus such assessments and fines for infractions of rules as may occur from time to time, and the rates of initiation fees are for the various trades—the bricklayers and masons is \$100, \$3 a month dues. The carpenter's is \$100 and a dollar and a half a month dues.

Mr. O'CONNELL. This is in Chicago?

Mr. MEYNE. This is in Chicago. It runs in the same general run in other large cities. Electricians, first-class journeymen, \$350; the B and C class journeymen, \$200, and the apprentice must pay \$100 initiation fee before he is ever taken.

Mr. O'CONNELL. You haven't mentioned any apprentice initiation fee for the other trades. Generally speaking, is the initiation fee a fee that is paid after the period of apprenticeship?

Mr. MEYNE. That is arranged afterward, as far as I remember. Mine is quite a while ago, but I had to pay mine before we started. That was only a few dollars then, \$10 or \$15.

Mr. O'CONNELL. I take it there wouldn't be any apprenticeship for labor, would there?

Mr. MEYNE. There is no apprenticeship for labor.

Plasterers' are \$150 to \$125; plumber, journeymen, \$200; steamfitters, \$300; painters, an average of \$100; and the plumbers' quarterly dues are \$15 and the steamfitters' quarterly dues are \$10.75.

Now another rather peculiar thing about this is that even though the unions are supposed to be national organizations, the transfer of membership from one city to another and from one part of the country to another is often found to be as difficult for a journeyman to get into a union in a strange town because the ranks are closed and they have a phrase, what they call "the books are closed," and they won't take any mechanics from strange towns.

Mr. O'CONNELL. Well, now, that particular situation, I take it, would tend to make it difficult for a member of the union in one area to move to another and find employment on a union job. Referring for the moment to the initiation fee, I take it from your reference to the size of the fees in connection with some of these trades, that you believe that to be an unequitable or unfortunate situation?

Mr. MEYNE. Where is a young man going to get \$500 or \$100 or a man that comes from the country to learn his trade and comes to the city, where is he going to get the money to join the union? The initiation fees are exorbitant and in my past experience most of the young men that have come to the cities have come from the country. I think that is one of the things that this committee might give some sympathetic thought and study to, to see what could be done in correcting that sort of situation.

Mr. O'CONNELL. How much effect do you suppose that situation has on the matter of the cost of the finished product, the house that we are talking about?

Mr. MEYNE. That is pretty difficult to say. I would like to say this, that every foreman that has been in my employ has either come from the country—they don't seem to raise them in the city; that is a startling statement, but that is nevertheless true; nearly every superintendent that comes into the large city comes from the country, or is foreign-born.

Dr. LUBIN. Mr. Meyne, I understood you to say a minute ago that as far as you knew there was no shortage of building mechanics in Chicago at the present time?

Mr. MEYNE. Not at the present time.

Dr. LUBIN. Has there been in the past 2 or 3 years?

Mr. MEYNE. In '37 there was a shortage, beginning to be felt, and the beginning of '38; there isn't any particular shortage at this time.

Dr. LUBIN. When you say "beginning to be felt," you actually couldn't get enough people?

Mr. MEYNE. We could get them, but there wasn't any selection of men, efficient and proficient in the work.

Dr. LUBIN. If, for example, his initiation fees were lowered tomorrow, as far as your supply of labor is concerned, it would have no effect? I mean, you see, right now you have plenty; anyway, you have no trouble getting it?

Mr. MEYNE. We haven't any particular trouble getting them now.

Dr. LUBIN. So it is really a question of anticipating a shortage?

Mr. O'CONNELL. Well, generally speaking, I would gather that it was your complaint with the situation that young people find it difficult to get the wherewithal to join the union or to become connected with the building trades generally, and to that extent it limits their opportunity for employment? It really doesn't, I gather, mean that you were concerned with any imminent shortage in that type of labor?

Mr. MEYNE. No; of course I must confine myself to my particular personal knowledge, and my own particular work, which is probably high-grade and a high-standard, and I have had a following over a period of time, that whenever I need any men they would leave other people and come to me, so that also affects my viewpoint, but nevertheless these men are getting older and older and they are getting less efficient.

Mr. O'CONNELL. Referring again for the moment to the material prices to which you referred, have you any first-hand knowledge as to other deterrents that might affect the price of materials—you see, when we speak of transportation costs and such things, I don't conceive of those as being the sort of deterrents to which I am referring.

I am thinking of things that are artificial and which arbitrarily increase prices.

Mr. MEYNE. I think that building materials cost more than other important things in our civilized life, and that are made under the jurisdiction of labor monopolies; by that I mean generally speaking, broadly speaking, unions.

Mr. O'CONNELL. Now we are still getting confused, I think, between materials and labor.

Mr. MEYNE. By materials you mean such things that go in as millwork?

Mr. O'CONNELL. I mean lumber, cement, steel, raw materials that go to make up the house. I am thinking of the cost of the materials now as distinguished from the cost of putting materials together on the site of the project. Have you any first-hand information as to any practices that might have had the effect in your area, to your knowledge, of unreasonably increasing the price of materials? It is one of the elements—I have no way of knowing whether you have any comparative answer or not; it happens to be one of the major elements that enter into the cost of the house. If you haven't any first-hand knowledge of it, why we will pass the question.

Mr. MEYNE. Well, I was just thinking about some of the practices of material dealers. For instance, we can't buy any materials from any manufacturer—of course they may have their own reasons for that, but it does seem to me that in many of the instances we ought not to be charged more for our material than is reasonable. Now to get specific, a sack of cement costs about \$1.70 to produce; at least that is what they tell us. If we buy it in Chicago delivered by freight, it costs 29 cents freight rate, yet the rate is only about 14 cents. If we send a truck or trailer to the bins of the cement company, their charge is \$1.70, but 15 cents a barrel for loading. Now if you can tell anybody that knows anything about handling cement that it costs 15 cents to load it on the truck when it doesn't cost anything additional to load it on a car, I can't quite understand it.

Now then if we want to buy Chicago cement in Milwaukee, it is the same price as it is in Chicago. You can buy cement that is made down-State in Chicago for the same price that you can buy Chicago cement for. Now that is the sort of a thing I mean when I say "dealer prices are not fair to our own people." Did I make myself clear?

Mr. O'CONNELL. I take it that you mean the price structure in the cement industry—

Mr. MEYNE. That is the price structure in the cement industry. Now the other industries, of course, the dealer and jobber situation is that we feel we would like to in many cases, especially where we have large quantities to buy, be able to buy direct from the dealer.

Mr. O'CONNELL. Well, generally speaking, do you mean that you are not able to find a competitive price situation in buying certain types of materials that you wish to buy? You have explained what the situation was, but you haven't made clear to me what the cause of the situation was, or what a more desirable situation would be.

Mr. MEYNE. Well, of course a more desirable situation would be—and we could produce homes for less money if we could buy our materials cheaper. Now to get to the cheaper market, we ought to be

able to get direct to the manufacturer, to the wholesaler, instead of the jobbers. Now we have had in times past a number of what we call set-ups or combinations. They have come and they have gone. I remember the first one back in 1916 or '18 with the ornamental group that had a bidding practice in Cleveland.

I have seen the sheet-metal men having groups and being indicted and prosecuted, and fined; the carpenters and the carpenters' union had a collusive agreement back in 1918 when a number of contractors were fined. The Chicago mill men were fined. Some of the labor leaders were fined. One of them even had to go to jail. And we have seen the glazing situation where glass cannot be purchased in the sash. If you buy a sash you must buy it and fit it and then the glazier comes on the job and puts in his glass.

If you could buy these various materials fitted, if you could buy glass right in the sash where it would be glazed in the shop, you would have quite a saving, and, speaking again of racketeers, only a few years ago, comparatively a few years ago, if you bought a medicine chest and it had the glass in it, it was set in the State of Indiana or some other State, the glass would have to be taken out and reset by a Chicago glazier or some business agent would have to be satisfied, and he would be fined, and the glass and medicine chest might be set.

If you had a situation where you didn't have the union label on certain millwork, you couldn't get the carpenters to install this millwork. That is what I mean by—and I think you are trying to get out of me by asking if there are any further retardents in this business of materials.

Mr. O'CONNELL. You have indicated just now a number of practices, some of them, I take it, a matter of union rule, and some of them a matter of combination between material men and contractors or some other group, all of which, to some extent have had the fact of unreasonably increasing the cost of the finished product, and I take it you also mean that while some of the instances to which you have referred are historical in the sense that they happened a number of years ago, it is your belief that those practices or similar practices continue to exist.

Mr. MEYNE. There is no question about that, that they exist. Now, further, if we could have prefabricated houses—by that I don't mean houses that you bring whole sides to the building, to the job, but precut lumber—if you could buy your lumber cut, if you could have your doors and windows fitted in the mill and have it shipped to the building, the erection labor would be considerably less. You haven't that privilege now. There is no reason why you should, if you could buy a kitchen cabinet that you couldn't buy that from the makers of these things completely made up with drawers fitted and doors fitted, and hardware applied, and completely finished, but we can't. If we want a wooden kitchen cabinet, we have to buy it and make it up. We have to fit the doors on the job. We have to fit the door and apply the hardware, and we have to paint it in the kitchen. All of those things are multiplying the cost.

Dr. Thorp this morning referred to the laborers and concrete mixer. Now, we in Chicago haven't the privilege of using such a thing as a batch mixed as he indicated was outmoded by the fact that you already have used ready-mixed concrete, that you have a device where you

ship the concrete, that somebody within a few minutes of the point of destination applies the water, and by the time it is ready to be backed up and dumped into the hopper you have ready-mixed concrete.

Now, just see what that means to a small operation of a home where you only have fifty or a hundred yards of concrete. You must set up a plant; you must haul the mixer; you must haul your equipment to the job; you must then set it up, and then you go after it the old-fashioned way of 30 years ago, of wheeling your wheelbarrow and dumping it into the mixer and it churns around and you take it out at the other end. Well, now the modern way is that you just merely have the truck back up to the hopper and dump it. No; we in Chicago are not allowed that sort of thing; we must pay the full price of having all of these things done in the old-fashioned way.

Mr. O'CONNELL. Then I understand you to say that the modern way as Dr. Thorp referred to of having ready-mixed concrete and deliver on the site is not available to you in Chicago, and by virtue of the rule—

Mr. MEYNE (interposing). Not by virtue of the rule, but by virtue of a dictation of the labor unions their leaders will not permit them to work on any job where batch concrete is delivered. The rule very definitely says that they shall not interfere with the use of any machinery of any kind, but that does not mean anything, apparently.

Mr. O'CONNELL. In your experience, have you anything you can tell the committee about the restrictive effect of building codes? We have had some testimony from persons of various areas and all of them have indicated outmoded provisions of building codes had the effect of unduly hampering the introduction of new materials.

Mr. MEYNE. All I can say, it took us 12 years to get a new building code in Chicago that we should have been able to get in 6 months by intelligent application of engineering minds and architects and builders. Naturally, when you have a building code where somebody has in the past set up for himself a special privilege, and that special privilege is being removed, he resents it; he is trying to keep his position, as was outlined here this morning, and he uses influence of every kind that he can to persuade those who are in charge of adopting the code, to keep the old privilege intact.

Mr. O'CONNELL. Those interested parties, they would not be confined to any particular group, would they?

Mr. MEYNE. There may be a number of groups. To illustrate, the plasterers' union had a bill introduced in Illinois which would compel three coats of plaster and put every plasterer on a licensed basis. The painters also had a bill introduced which would compel every painter to have a license. It would prohibit any home owner from painting a dado in his kitchen. Fortunately the bill didn't pass, but it did pass second reading and was given consideration.

We endeavored to have the exits of an ordinary three-flat building to withstand 3-hour fire test, but no, we couldn't get by with that in a change of our ordinance; we had to have extra heavy brick walls and tiles and things of that sort.

Mr. O'CONNELL. Well now, that type of pressure or interest wouldn't be confined to the labor group, would it?

Mr. MEYNE. Oh, no; I didn't mean to infer that the labor group is at fault. There are a number of people there that have a privilege.

Mr. O'CONNELL. That is what I wanted to bring out, the privilege you refer to as being solidified—

Mr. MEYNE (interposing). No, the plasterer employer was just as guilty of trying to get a license for himself and his people as the labor; in fact I believe he pushed it more than the labor.

Mr. O'CONNELL. There is general resistance to change, then I take it, by various groups; they might be material people or manufacturers of a particular type of product which was approved under the building code or it might be a labor group who would resist change in a building code or in other improved methods of construction. Is that correct?

Mr. MEYNE. Yes; speaking of improved methods of construction, we have constant resistance against the use of new methods, like the use of compressed air for steel riveting and steel drilling and stone cutting and carving and concrete cutting—we have had all those things and we have had resistance against electric tooling. To illustrate, back about 15 years ago the stone cutters over all the period compressed air was being developed, refused the use of cutting stone with compressed air. After a very serious strike and a compromise, an award by an umpire gave the employer the right to use compressed air. The result was not one tall building was built in terra cotta after that but they got all of that work of building all the skyscrapers in 15 years in Chicago out of stone. So you see what the resistance to an improvement meant to them. It called for men from all over the country to come in and help men cut stone in Chicago by giving them the new methods, and so it is all the way through.

Mr. O'CONNELL. That is a rather difficult situation to correct, is it not?

Mr. MEYNE. Oh, education.

Mr. O'CONNELL. It is a long-range program of making little progress at a time, I take it.

It is getting late. Dr. Lubin—oh, he has gone.

Acting Chairman REECE. He said he would forego asking any questions.

Mr. O'CONNELL. If the committee have no further questions to ask Mr. Meyne on this material he has discussed, I have none. The chairman has suggested, and I feel quite sympathetic with it, that you might desire to possibly change what you had said about racketeering or at least make it a little clearer that by racketeering as developed you were meaning something a little different from racketeering as we had understood it in the first instance. Are you willing to stand on your statement as it is developed?

Mr. MEYNE. If I understood you correctly, and you understood me correctly, probably we had better change my definition of racketeering as it later developed in the answering of your questions and if you—

Mr. O'CONNELL (interposing). Let me say this and see if you are in accord: In developing the practices to which you are referring, it seems to me that what you had in mind was practices which have been indulged in and are being indulged in on the part of unions which have for their purpose the obtaining of as large a share of the labor cost of a completed house as is possible for that particular special group, and that you are unsympathetic with that view and that it is that type of practice that you were thinking of when you referred to racketeering.

Mr. MEYNE. Yes; I was thinking of that particular thing; but at

the same time when men can settle things for money, and cause situations to be created so that they may get money, why that is racketeering.

Mr. O'CONNELL. I have no quarrel with you on that. My feeling is that while we are now in accord on the definition of racketeering it is a very dangerous thing to make allegations to the effect that racketeering exists to an extent in the building trades without being in a position to be fairly explicit, because you are almost in a position of tarring a lot of people with a brush without indicating the extent to which they should be so tarred. If you are willing to stand on the general statement that that kind of practice, which we will agree is racketeering, exists in Chicago and at the same time unwilling or unable to be specific as to instances, why I take it that that is the state at which we will have to leave the record.

Mr. MEYNE. Well, I'll tell you, I prefer to have it deleted from the record for this reason—that I can't afford to get into an awful lot of lawsuits.

Mr. O'CONNELL. I'm not sure about how successful we will be in deleting it from the record but let us say for the purpose of the record that the practices which you primarily had in mind on the part of labor unions were those which were for the purpose of obtaining for that group as large a share of the labor employed in housing as it was possible and that it is your view that that is not a desirable practice socially and that you are entirely unsympathetic with it and that is as far as you care to go in discussing labor practices with this committee.

I have no further questions tonight.

Mr. MEYNE. I am sorry that I made such a poor witness. I have been on the train all night.

Acting Chairman REECE. I think you have made a very splendid presentation and the committee has enjoyed it very much. Your testimony, I think, has been very helpful.

Mr. MEYNE. I thank you very much.

Acting Chairman REECE. The committee will stand in recess until tomorrow at 10:30.

(Whereupon, at 5:20 p. m., a recess was taken until Wednesday, July 12, 1939, at 10:30 a. m.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

WEDNESDAY, JULY 12, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:45 a. m., pursuant to adjournment on Tuesday, July 11, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senator O'Mahoney (chairman), Representatives Reece and Williams, Messrs. O'Connell, Henderson, Lubin, Hinrichs, and Brackett.

Present also: Messrs. Lowell J. Chawner, Department of Commerce; Ernest Meyers, Department of Justice; Gerhard A. Gesell, Securities and Exchange Commission; and Peter A. Stone, coordinator of construction studies for the committee.

Chairman O'MAHONEY. This committee is now in order. Are you ready to proceed?

Mr. O'CONNELL. I am, Mr. Chairman.

Before calling the first witness I should like to make a very brief statement. From time to time during the course of these hearings various witnesses have referred to the part that labor plays in determining the cost of housing. And it has on several occasions been suggested or intimated that this particular element of cost has been and is now inordinately high. As was pointed out by Mr. Arnold last week, it has not been possible or practical to examine at this time this angle of the whole problem with the degree of particularity that one might wish, and for this reason labor and labor practices have come into our picture incidental to testimony on a broader basis. However, such practices have been referred to and it has been felt that it was only appropriate to bring before the committee a representative of organized labor so that also in a general fashion the position of labor might be stated from its point of view.

With that preliminary statement I would like to call Mr. Daniel Tracy.

Chairman O'MAHONEY. Do you solemnly swear that the testimony you are about to give in this procedure will be the truth, the whole truth and nothing but the truth, so help you God?

Mr. TRACY. I do.

Chairman O'MAHONEY. Please be seated, Mr. Tracy.

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TESTIMONY OF D. W. TRACY, PRESIDENT, INTERNATIONAL
BROTHERHOOD OF ELECTRICAL WORKERS, WASHINGTON, D. C.

ROLE OF LABOR UNIONS IN RESIDENTIAL CONSTRUCTION

Mr. O'CONNELL. Mr. Tracy, will you please state your name, present address?

Mr. TRACY. Dan W. Tracy, 1200 Fifteenth Street NW., Washington, D. C.

Mr. O'CONNELL. What is your position?

Mr. TRACY. President of the International Brotherhood of Electrical Workers.

Mr. O'CONNELL. And that is an organization of the local unions of electrical workers, is that correct?

Mr. TRACY. Yes; United States, Canada, Panama, Alaska, and other possessions of the United States, known as an international labor organization.

Mr. O'CONNELL. And that in turn is an affiliate of the American Federation of Labor, I suppose.

Mr. TRACY. American Federation of Labor and all of its branches.

The CHAIRMAN. Any other foreign countries than Canada?

Mr. TRACY. Not yet, Mr. Chairman.

The CHAIRMAN. You have some hopes, apparently.

Mr. TRACY. We have had in the Republic of Mexico, local unions, but under the present political administration, we have none.

Mr. O'CONNELL. How many members are there in your organization, Mr. Tracy?

Mr. TRACY. Approximately 200,000 members in the United States and those countries which I have mentioned.

Mr. O'CONNELL. I suppose the vast majority of the members are in the United States.

Mr. TRACY. Yes; that is true.

Mr. O'CONNELL. Are all of the members of your unions connected with the construction industry?

Mr. TRACY. No. There are 42 percent only of that number that are employed in the construction industry; the balance, 58 percent, listed in other fields, namely, the electrical utility, telephone, electrical manufacturing, railroads, marine, radio broadcasting, and kindred lines.

Mr. O'CONNELL. I see. Then the 58 percent includes maintenance crews for public utilities and other organizations?

Mr. TRACY. Yes.

Mr. O'CONNELL. Includes some workers in factories, electrical manufacturing groups?

Mr. TRACY. That is right. Now the maintenance and repairs, alteration men, come under this 42 percent.

—Mr. O'CONNELL. They would?

Mr. TRACY. Yes. They come under what is known to us as the inside branch of our trade, which covers all construction workers. We consider maintenance, alterations, and minor extensions, construction.

Mr. O'CONNELL. I see. Mr. Tracy, I take it you are generally familiar with the construction industry, been connected with it for quite some time?

Mr. TRACY. Yes; quite familiar. For many years I have handled the business of the local unions in the local industry and believe I am familiar with their problems and with the problems of the construction industry. As president of the Brotherhood there pass through my office every day and every year the major problems that confront the workers in the construction industry.

Mr. O'CONNELL. We have had some testimony before the committee as to what you might call the fragmentary character of the industry, particularly the number of small units engaged in the industry on the site of the project. Has your experience been that the description of the industry as given by Dr. Thorp yesterday was substantially a correct one?

Mr. TRACY. Well, I didn't hear Dr. Thorp's full testimony. I haven't had the time to read it, either, so, therefore, I couldn't answer that particular part of your question; however, your first question is a very good one in my opinion. I would like to answer that.

Mr. O'CONNELL. All right.

Mr. TRACY. The construction industry, as every one knows, is of a large scope. Taken as a whole, it is a big business. Recently a questionnaire was sent out to the electrical contractors in this country, including large and small, and this mailing covered 15,000 in the classification of electrical contractors. Our international union has contracts with 4,000 of those electrical contractors. Even the so-called large firms or companies in the construction industry are small businesses when compared with the giants such as the Bell Telephone System, the General Electric Co., the Ford Co. and the General Motors.

The very decentralized and local character of the construction industry appears to preclude an assumption of collusion in restraint of trade or monopoly. If we had a centralized industry with a few large firms, it appears to me the assumption of monopoly would be more justified.

Mr. O'CONNELL. I hadn't intended to discuss that particular phase of the problem at this time, but since you have mentioned it, I am not entirely clear as to why large units and a few units are necessary to monopoly. If by monopoly we mean an absolute monopoly, that is one thing, but if by monopoly we are thinking of monopolistic practices or restrictive practices, it has always been my impression that those practices would flourish in localities where there are a number of otherwise competing units. Would you care to elaborate on that statement of yours at all?

Mr. TRACY. Yes; I might do that. The construction industry today, from our own experience and knowledge, is chopped up between so many. First, you have the architects, you have the general contractor who in many instances operates as a broker, does very little of the construction job directly by himself. He sublets, such as the foundation work, such as the brick work, the plastering, plumbing, electrical work, and he has nothing to do with the plans of the architect. In many cases the plumbing engineer, the electrical engineer, draw the electrical and plumbing specifications and plans for a job, for the architect, which are accepted and then used in the general contractor's bid that is submitted, and with the many ramifications in the construction industry today, it has created a condition of chaos in the construction industry, for in former years the general contractor did

practically all of the work on the job which he secured, except plumbing and electrical, and those were let out to employers who specialized in those two branches of the construction industry.

That is why I state that the character of the construction industry appears to preclude an assumption of collusion in restraint of trade because there are so many in it. It is not one big business. As a whole you might call it a big business, but it has rather loose connections of different types of people.

Mr. O'CONNELL. I certainly would agree it would be as a practical matter impossible to combine all of the many different groups engaged in the construction industry into one large combination in restraint of trade, and I don't want to pursue this further. It has been suggested from time to time, though, that it is entirely possible to have collusive arrangements and combinations in restraint of trade among groups representing a particular part of the construction industry. For example, there wouldn't seem to me to be any unsurmountable difficulty to having a combination between the retail lumber dealers in a given area, or a combination between the plumbers or electrical contractors or any of the many groups that go to make up the whole picture. I don't think we ought to pursue that. I merely wanted to indicate that I wasn't entirely clear that monopoly or restricted combinations in restraint of trade were impossible in the construction industry.

The CHAIRMAN. Mr. O'Connell, it might be well to say that there is a frequent misconception of what is meant by monopoly. I suppose there is a popular impression that when one speaks of monopoly, one is speaking of a single unit dominating and controlling an entire field, whereas, as a matter of fact, the Sherman antitrust law was not restricted to that interpretation. The Sherman antitrust law not only forbade monopolies in attempts to monopolize in that sense, but it also forbade combinations of conspiracy in restraint of trade and a combination of conspiracy in restraint of trade might be committed at a crossroads town as well as in the big city of New York, so long as it was operated in interstate commerce.

I think that distinction is not frequently understood.

Mr. O'CONNELL. That is stated much better than I could have stated it. Would you care to add anything to what you said?

Mr. TRACY. No; I don't believe I care to go into that any further.

Mr. O'CONNELL. All right. There has been some testimony before the committee as to the relative cost of the various elements that enter into the capital cost of accounts. Have you any statistics as to the percentage of the cost of construction of residential housing that goes to labor on the site of the project?

Mr. TRACY. Yes. This has shrunk considerably during the last 7 years. For many years the ratio was 50-50, that is 50 percent of the builders' funds went to purchase the building material, and 50 percent to labor. The ratio now is about 35 to 65. That is, 35 percent of the construction job goes to labor and 65 percent to materials. Even put upon a most conservative basis, I can state with assurance that the ratio now is from 33 to 42 percent for labor as compared with 67 and 58 percent for materials.

A report made by the Public Works Administration to President Roosevelt in June 1939, states, and I quote, "On a P. W. A. project, 35.7 percent of the expenditures are for labor; the balance, 64.3 goes

for material." This report is borne out by figures we have gathered on residential building both of public and private character. As early as October 1932, the Monthly Labor Review of the United States Department of Labor has evidence of this trend toward lower labor costs. In Atlanta, Ga., the labor cost on construction jobs was as low as 29.9 percent. In Dallas, Tex., it was as low as 26 percent. The highest figure given was for Boston, Mass., at 43.1 percent. Purdue University housing research project, so-called, places the percentage of labor between 28 and 33 percent. Incidentally, we should state that the electrical part of any given job or project represents only 3 percent of the total cost of the job or project.

Mr. O'CONNELL. Mr. Tracy, you referred to the fact that some years ago the ratio as between labor and materials was about 50-50. To what do you attribute the decrease in the percentage of labor or cost on the site, has it increased mechanization?

Mr. TRACY. Yes; and evolution in the construction industry, the replacement of manpower by machines, the fabrication of certain equipment and material, and manufacturing plants and other types of plants, and the change of manufacturing of certain material that permits an individual worker to put in more different types of work than he did under the old system.

Mr. O'CONNELL. Have you any figures as to how much workers in the electrical field make per hour, per week, and per year?

Mr. TRACY. Yes; our research department keeps a rather close check on employment problems in our union. If an electrical worker worked full time, a 40-hour week for 52 weeks, he would have worked 1,038 hours, or, in 1938—I beg your pardon, he would have worked in 1938 2,080 hours per year. Figures from 47 cities indicate, however, that the average hours per man per year was 1,276.9 hours. This indicates a subnormal employment based upon a full-time year. The average hourly wage for inside electric workers, and, by the way, that is those people that are employed in construction—the average hourly wage for inside electrical workers for the entire inside section of the union, was \$1.20 an hour. These figures are based upon reports from 140 cities.

On the basis of average hours worked, our men earned \$1,532.28 in 1938. Following the same line of figuring in 1939, the average wage is \$1.21, which would mean an average of \$1,545. Now, you will notice that we took two of the best years for those figures that we have had since 1929. This, I think, you will agree is not a profiteering income for skilled workers in a basic industry. These figures of \$1,532 must be regarded as a more or less theoretical figure, because it represents work hours in principal industrial cities rather than in small towns and outlying districts.

Mr. O'CONNELL. As I understand it, then, in 1938, taking 140 cities, the average number of hours worked was 1,276 and had they worked full time, that is, 40 hours a week for 50 weeks, 52 weeks, in the year, it would have been 2,080. That indicates that the average employment was not greatly over 50 percent, that is, in hours. Now, the wage rates, you say the average wage rate in 140 cities was, in 1938, \$1.20 an hour?

Mr. TRACY. That is right.

Mr. O'CONNELL. Is there a substantial variation between the highest union rate and the lowest union rate within those cities?

Mr. TRACY. Yes; there is a range there from \$1 an hour to \$2 an hour.

Mr. O'CONNELL. And in determining the \$1.20 average, that is, an average by cities, or is it an average by individual workers?

Mr. TRACY. Average by cities.

Mr. O'CONNELL. Would you think that, with the average taken in terms of the actual workers, that it would change the figure very much?

Mr. TRACY. I figure it would change it, yes; downward to some extent. As to how much, I could not say. We have not had time to work it out on that basis.

Mr. O'CONNELL. Now, those figures relate to members of your union only?

Mr. TRACY. That is correct.

Mr. O'CONNELL. Can you give us any information as to the extent of unionization in the residential building fields generally? I am referring now to your union, primarily.

Mr. TRACY. Yes; I can do that. As a matter of fact, numerous low-cost housing projects have been erected under Government supervision on a purely nonunion basis; moreover, the residential field, so-called, throughout the United States, has been characterized by nonunion conditions; in view of the fact that there is a differential of 10 to 40 percent between union and nonunion wages, it is apparent that the reason for the failure to produce low-cost housing on a low-cost basis cannot be traced to wage conditions at all. It seems to me that the whole theoretical case against unions and union wage scales in this particular field falls to the ground upon this fact alone.

Now, as close as we could figure it in these United States, 90 percent of the small homes throughout this country are erected and equipped by workers not members of any labor organization; 90 percent is done by nonunion people.

Mr. O'CONNELL. You are speaking about residential construction?

Mr. TRACY. I am talking about residential construction.

Mr. O'CONNELL. The large projects as well as the small, that is, individual homes and large homes?

Mr. TRACY. Homes ranging from \$3,000 to \$12,000, up to as high as \$15,000.

Mr. O'CONNELL. But are you referring primarily to the single-family type of construction?

Mr. TRACY. I am referring primarily to the single-family, yes; because, as the cost of the residence goes up, the more modern equipment is placed in that home and a higher type of skill is required.

Mr. O'CONNELL. And when you get into the large multiple-dwelling type of construction the probabilities are that the percentage of unionization would be higher?

Mr. TRACY. Is greater.

Mr. O'CONNELL. Would it not?

Mr. TRACY. Yes.

Mr. O'CONNELL. And you referred to the fact that some Government housing projects had been constructed on a nonunion basis. You haven't any idea how extensive that is; that is probably a fairly small percentage of Government activity, isn't it?

Mr. TRACY. Well, we have done just about—that is, the organizations and the American Federation of Labor has done very little of the Government work under the F. H. A. and other branches of the

Government, including the housing program under P. W. A. Now, in the District of Columbia here, where there happens to be at this time and has been for a year and a half, quite a housing program both by Government and private industry, while my organization does possibly more of that work—except the plumbers do about an equal amount of work on those residences—all of the other trades are non-union. Now, that condition exists right here in the District. It is here for anybody to see. The wage rates for mechanics in all branches of the building trades are as low as 50 and 60 cents. Our organization has tried to meet that situation in order to gain control of that earning opportunity for our people and we have reduced our rates of wages materially to get that work, and we have reduced it almost 100 percent.

Now, some of the other trades have done the same thing but we find that when we as a labor organization, reduce our rates, the nonunion employer then in turn advises his people that the union has reduced the rate and therefore he is compelled to reduce his, until today, in our own great capital here, we have got a mechanic's rate on housing as low as 50 and 60 cents for mechanics, and, understand, that takes in the electrical workers as well as other trades.

Now, we find that the real-estate people and lumber people and material people secure the services of competent nonunion mechanics, they underwrite the cost for that job and pay him as a rule a foreman's wages, and he secures only nonunion people because union people will not give their services on that type of a job.

Now, that condition prevails here in the District of Columbia and I think I can safely say that in the greater majority of the cities in this country that same condition prevails. There may be some exceptional cases. I know that there are a few within our organization and there are a few possibly within some of the other labor organizations, in this field of activity.

Now, with that condition of wages, no working rule is established under those conditions other than probably the 8-hour day, and you can see, I think, that the labor cost is not a factor in retarding this housing program throughout these United States.

Dr. LUBIN. Mr. Tracy, when you talk about the housing construction in Washington, you are talking about all types, large as well as small, multiple?

Mr. TRACY. I 'am talking about, Doctor, residences from \$3,000 up to \$15,000—I dare say there have been some up to \$25,000 that have been done.

Dr. LUBIN. How about lighter scale big apartment houses? Are they usually union or nonunion?

Mr. TRACY. I wouldn't say that they are 100 percent union, Doctor. Some trades are successful in getting employment on it, probably through friendship for a contractor who secures a certain part of that work. I can't speak for the other trades. I only know those conditions from my own personal observation and mention only those. I would say that the apartment work, the majority of that, I would say, is union. The majority of it being done even in what we call the downtown area—a lot of it has been done not exclusively by union labor but 80 percent union.

Dr. LUBIN. In other words, as far as the individual trades are concerned there is no attempt to make any job completely union. In

other words, the plumbers will install plumbing in a building that has been erected with nonunion bricklayers.

Mr. TRACY. Yes; in the District of Columbia; and the electrical workers will do the same thing because there is no way to control the contractor who comes into existence today to build one or more houses and after he has completed that he goes out of business as a rule, unless there is further opportunity for him.

Dr. LUBIN. Would that be pretty general throughout the country?

Mr. TRACY. I would say yes, Doctor, that it is pretty general. However, there are certain cities in the United States that have successfully maintained that earning opportunity for members of the respective craft organizations. Take in the city of Chicago, all those residences there are done by union labor simply because the union has had in effect for several years to my knowledge a lower wage bracket for that type of work.

Dr. LUBIN. That is an interesting point you raise there. Is it quite common for the unions to agree with the contractors to accept low wage rates for lower-cost housing?

Mr. TRACY. That is right. That is, pretty generally.

Dr. LUBIN. Is it growing?

Mr. TRACY. That is pretty general in my organization, and I have some knowledge that it is pretty general in one or two others that there is a differentiation. For illustration, in the District of Columbia on the large Government-controlled work the wage rate for the electrical work is a dollar eighty cents an hour. On the apartment work it is \$1 an hour. On the residence work and the extreme outer part of the District of Columbia a 75-cent wage rate has been established.

The CHAIRMAN. Would it be proper to say that the larger the contractor, and the more stable the business of the contractor, the more easy unionization becomes?

Mr. TRACY. I think we can safely say that, Mr. Chairman.

The CHAIRMAN. The difficulties that the union organizer meets are more apparent with the small contractors than the big operators.

Mr. TRACY. That is right.

The CHAIRMAN. So that this situation in which complete unionization is to be found is usually on large projects?

Mr. TRACY. Generally, yes. There are some cities, however, where the larger contractor you know doesn't care to go into this housing work. It builds up his overhead and he just really doesn't care for it, and the competition is so keen in it he doesn't find it worth while, and we know the competition is keen for it. But we find that we have what we call the individual contractors that make a specialty of following this housing work. They go out and solicit the contract, they either supervise the contract or they may do the work themselves. In our case, we have individuals who call themselves electrical contractors, and they do contract for electrical work, but they solicit the work, they install the work, and they collect for it themselves as an individual. That is the keen competition that we have now, and that exists generally over the country; there is no doubt about that at all.

The CHAIRMAN. So the figures you are giving with respect to unionization, particularly among electrical workers, have to do with housing projects from the small house of \$3,000 up to about fifteen thousand all through the country.

Mr. TRACY. That is right.

The CHAIRMAN. And most of that work is done by nonunion contractors?

Mr. TRACY. Ninety percent of it is done by nonunion people.

The CHAIRMAN. That is very interesting.

Dr. LUBIN. May I ask another question? Is there any difference in your labor cost per unit of installation on a big project as compared to a little? In other words, is it almost as easy for a man to pay \$2 an hour when you have to put in 150 fixtures in a building, than it would be to hire a man at \$1 an hour where you had only 6 or 7 to put in? In terms of the actual cost to the contractor, is there a difference in the day's work you get out of the men when you have a big job as compared to a little job?

Mr. TRACY. I think that an employer paying \$2 an hour gets \$2 worth of service.

Dr. LUBIN. I am not thinking of it in that sense. Here is an employer who has a big building, 300 apartments. He puts a crew of electricians to work. In terms of the units of work done, is it possible to get more work done in a day on a job like that than would be if you had only a small job?

Mr. TRACY. It is our experience he will get greater production and greater efficiency, yes, out of the individuals. It is my opinion that if you employ 60-cent labor, you are going to get 60 cents worth of work an hour.

Dr. LUBIN. I was thinking of your own case where you have a \$2 rate for some jobs and a \$1 rate for other jobs.

Mr. TRACY. The type of fixture where the \$2-an-hour rate applies is of the type we have in this building here. The type of fixture the dollar-an-hour man hangs is what is known as a single unit. It is true he can put up more single units than the type of fixtures which appear in this room, it is quite natural he would because they are very simple—a single unit with a base, a canopy of this type that is just fastened on the ceiling, fastened to the outlet box.

I would say, Doctor, on the big buildings where those fixtures are hung—however, there is a differential in the rate for hanging of fixtures in the electrical contracting industry; that \$2 an hour doesn't apply to hanging of fixtures. We have no \$2 an hour for the hanging of fixtures.

Representative REECE. What is the source of the figures on which you base your estimate that 90 percent of the mechanical work on houses ranging up to \$15,000 is done by nonunion labor?

Mr. TRACY. The check by our local unions through the permits issued by the municipalities. The great majority of the municipalities have electrical ordinances where permits are required before starting the job; by that I mean electrical permit. The size of the job or the number of outlets is made known upon that permit, and we check those permits in the city halls and find out what the volume of work was that was done in that city per month or per year. Of course we know who the union employers are, we know who the nonunion employers are, so it is a very simple matter to check it. We can get all the individual projects that were done in that particular area and then we can separate it and know how much we did and how much the nonunion men did.

It is through our local units and our research department who make that check, and we have set up in all of our local unions an educational

committee whose responsibilities are to check that permit list in the city hall.

Representative REECE. The houses ranging up to \$15,000 in cost would represent a majority of the residential construction in cities of 100,000 or less, would they not?

Mr. TRACY. No; I wouldn't say that. I would say that they were in a minority because in the majority workers don't purchase that type of homes. They purchase a smaller home than fifteen thousand. I would say, now you take Tulsa, Okla., which I am quite familiar with and have made somewhat of a survey there recently, the average type home there is \$15,000 or less.

Representative REECE. Your statement then did not include the houses, the cost of which was less than three thousand?

Mr. TRACY. No; because we don't go below that. We have somewhat of a check on that, I believe, but that is going pretty low when you go into a home of less than three thousand. There are very few of those, I think.

Representative REECE. Is that work done with union or nonunion labor?

Mr. TRACY. About three thousand?

Representative REECE. Yes.

Mr. TRACY. It is done exclusively by nonunion. We do very, very little of that. I would say that is exclusively lost to the union worker if it is a project below \$3,000.

Representative REECE. My question was, In cities of a hundred thousand or less, would not the residential construction ranging up to \$15,000 include a very large percentage of the residential construction?

Mr. TRACY. I don't know whether I grasp your question. May I ask a question to find out whether I have you right? You mean if in cities of a hundred thousand or less—

Representative REECE (interposing). I will restate my question. In cities of a hundred thousand or less, is not a very large percentage of the residential construction of less than \$15,000 in cost?

Mr. TRACY. Yes; I would say—below \$15,000.

Representative REECE. Then, according to your statement, in cities of a hundred thousand or less, most of the mechanical work on residences is done by nonunion labor.

Mr. TRACY. Yes; done by nonunion labor. I made that statement.

Mr. O'CONNELL. Mr. Tracy, how did your organization in its dealings with employers of labor—does it have individual contracts with employers, or does it establish a union scale for an area, or just how does it operate?

Mr. TRACY. The labor organizations operate exclusively on a contract basis with our employers. We have many reasons for that. Those contracts are entered into by collective bargaining through negotiation of the employer and committees representing our local unions, and those contracts are entered into individually by the contractor and by the local union. No contract can be finally consummated between a contractor or a group of contractors and any one of our local unions until it first has the approval of the international organization, or the international president, and we do make contracts exclusively throughout the country, which contract covers the wages, working conditions for the members of the union.

Mr. O'CONNELL. Some unions don't operate that way. Isn't that correct?

Mr. TRACY. As I understand it, there are very few that do operate that way.

Mr. O'CONNELL. And your contract with individual contractors embodies wages, hours, other working conditions.

Mr. TRACY. That is right.

Mr. O'CONNELL. Tell me first, does your contract cover a particular term for a particular period?

Mr. TRACY. Yes, it does; some are entered into for a period of 12 months, some for a period of 24, and some for a period of 36. Others are what we term as perpetual agreements.

Mr. O'CONNELL. Supposing that I as a contractor wished to make a contract with your unions fixing wages, hours, and other conditions of work over a period which would conform to the period of a particular construction job that I propose to undertake; would that be possible? I mean in general would it be possible for me to protect my labor cost on a particular job by contracting with the union?

Mr. TRACY. Yes, it would be good business on your part to do so; because of the fact that on signing that contract for that job or for several jobs, you would be given a guaranty from the union that that job would be completed upon the terms contained in the agreement at the time that the job started. Does that answer your question?

Mr. O'CONNELL. Yes; I can see that would be very desirable.

Mr. TRACY. I might elaborate a little more on that. Agreements with us are very sacred, and contractors operate in San Francisco under a union contract with us and operate any place throughout the United States and Canada under that same contract. However, should there be a change of conditions in the territory outside of San Francisco, what the conditions are in San Francisco, the only requirements upon him are that he comply with those conditions in the territory in which he is doing the work. He also has the opportunity to send his own men in to supervise the work and look out after his own personal interest.

We service him in New York and Canada or any other part of the United States as long as he operates in his home town as a union employer, and that contract covers him no matter where he goes.

Mr. O'CONNELL. Generally speaking, I take it he would be expected to obtain his union workers from the territory in which he happens to be operating.

Mr. TRACY. That is quite right. If he should come into the District, he would be required to get his workers from the union in the District here, other than those of a supervisory or foreman capacity.

Dr. LUBIN. What would happen if there weren't enough here?

Mr. TRACY. Then the union would be compelled to go to Baltimore or Philadelphia and bring them in here, because we are compelled to service the contract.

Dr. LUBIN. You do that?

Mr. TRACY. We do that day after day. It is quite a responsibility and it is quite an expense, but we do it, nevertheless.

Dr. LUBIN. That is very interesting, because one of the witnesses yesterday raised the question about the inability of getting workers into one city from another under union contracts. It is rather interesting to hear that.

Mr. TRACY. For illustration, a job of a large project last year started in the State of Pennsylvania through our local union which is one of the largest in that area there, exhausted their supply and the International

was called upon to supply the additional labor over and above what the local union was able to supply. So we brought them in from the areas where there is less employment such as in the Central States; we brought them in from Chicago. We pay their transportation and deliver them on the job, and they pay their own living expenses while they are there.

Dr. LUBIN. What do they get; the Pennsylvania wage rate?

Mr. TRACY. They get the wage rate which is a dollar and a half, and their own wage rate in Chicago is \$1.70. But, nevertheless, we had to supply the men, and we did it.

The CHAIRMAN. Which wage rate did they get?

Mr. TRACY. A dollar and a half. They got the lower wage rate than what prevailed in the city in which they left.

Now, others left in the territory that received an increase in wages, they left the territory at only a dollar and a quarter, but they got the dollar and a half.

The CHAIRMAN. How many men were transported in this particular instance?

Mr. TRACY. I don't believe I have the correct figures, Mr. Chairman, but there were 755 electrical workers, and their quota I think was 220. As it comes to me, that is about the number that was imported.

The CHAIRMAN. How much of that sort of transportation would you do in a normal year?

Mr. TRACY. We do an enormous amount of it. We have done an enormous amount of it, particularly in the last 5 years, because of the jobs being done in rural communities such as the Boulder Dam. We had to supply all of the men there from the Pacific coast area. I couldn't give you any figures as to how many we have transported without the facts being before me. I don't believe we could give it to you correctly, but it has been more the last few years than it was prior to that, because there has been more rural construction, and in those rural areas, there is not sufficient labor to supply the demand, but it being a union job, then the union obligates itself; that is, our union obligates itself to supply the demand on that job on that site without any cost or expense to the employer. He pays the expenses of his own people that he sends direct. Those that he calls upon us for, we have to pay that cost.

The CHAIRMAN. You wouldn't want to hazard a guess as to the number which were transported last year, let us say?

Mr. TRACY. No, because we imported a large number into the New York area because of the fair, and then we had several other large projects. I wouldn't want to hazard a guess on that. If the committee wanted it, I could try to get it as accurately as I could from our records, but I know the cost has tripled itself in the last few years.

The CHAIRMAN. I think it would be an interesting fact to know what it has cost the union, for example, for the transportation of workers in this manner and the approximate number.

Mr. TRACY. Well, I could give that to the committee. We can try to get it for the committee if they decide they care to have that information. It is rather interesting. I have the responsibility of the administration of the affairs, and I have to watch the financial part of it, and I discovered that it increased tremendously because of the jobs being in rural areas where we didn't have it before.

The CHAIRMAN. Is that practice followed by any other unions?

Mr. TRACY. Yes, I think it is. I don't think that the union itself pays the expenses of transportation.

The CHAIRMAN. You think the Electrical Workers are the only organization that do that?

Mr. TRACY. I wouldn't say that, because I don't know; I don't know all of the policies of all the labor organizations.

The CHAIRMAN. But in any event, it is more or less common practice for the unions to furnish workers for contractors in various parts of the country by shifting them back and forth.

Mr. TRACY. I think all unions do that. I thought your question was, Do all unions take care of the transportation and incidental expenses in connection therewith? I don't know whether they do or not. I can speak only for the Electrical Workers. For instance, we had a small job, but it required highly specialized cable men and in the city of Jacksonville, Fla., there were not sufficient men available there to do that type of work and with the fair going on, in fact, two fairs going on, there was no place close by that those local unions could get men of that type, so we were called upon and we went to Boston, that was the closest place we could get them, and, of course, they take their cars along and we furnish them transportation. But you see the distance that we have to go sometimes to supply them. That is without any cost to our employers.

Dr. LUBIN. What that means in effect is that you are hurting the wage rate, at least to the extent that the employer otherwise would have to go out and bid higher prices and offer higher wages to get them to come.

Mr. TRACY. Yes, I agree with you. I wish the industry would take over that expense that we go to year after year. The industry should take it over. I don't think the labor should have to do it. It is an obligation we have made and we carry it out.

Dr. LUBIN. But in a sense, you keep your local wage rate from going up because you say to the contractor, "If you can't get these fellows, we will furnish them at the wage rate that prevails here in town."

Mr. TRACY. That is right.

Mr. O'CONNELL. Mr. Tracy, do you know in a general way whether other unions follow similar practices to your union in contracting with individual contractors for a term or period of time, or whether the tendency in other unions is to fix a wage rate for an area?

Mr. TRACY. Only from general observation. I do know that other unions do negotiate wages for a definite period of time, which is a guaranty to the contractor there will be no wage increase during that period of time agreed to. I have no records of any other unions on that.

Mr. O'CONNELL. You have indicated that your wage scale is far from uniform throughout the United States.

Mr. TRACY. It varies in every locality; wages are set up locally, based upon local conditions.

Mr. O'CONNELL. And the top you indicated was in some of the metropolitan areas \$2 an hour, and ranges down as low as a dollar an hour?

Mr. TRACY. A dollar an hour.

Mr. O'CONNELL. In addition to provisions governing the wage rates and hours of employment, does your organization set up other

standards governing other phases of the employer-employee relationship?

Mr TRACY. Yes.

Mr. O'CONNELL. And they are referred to generally as working rules?

Mr. TRACY. Working rules.

Mr. O'CONNELL. Would you explain to the committee something about the working rules, what they are, and what type of thing they involve?

Mr. TRACY. To explain that, let me explain certain things about the working rules. In the first place, working rules attest to the competitive character of the building construction industry. A working rule can be defined as a protective measure against conditions arising under competitive conditions, one builder against another. It is unreasonable to believe, therefore, the working rules are evidence of monopolistic conditions if they arise out of competition. They merely cushion the shock of competition.

Dr. William Haber, author of "Industrial Relations in the Building Industry," published by Harvard University, probably the most reliable work in the field, says:

The rules of the union are protective devices to protect highly competitive forces from endangering the standard rate of pay in other union conditions. Many of the regulations enforced at present or in the past are closely related to objective conditions found in the industry and corrections of such conditions are the first essential toward a sane approach to this vexing problem.

In the second place it must be noted that working rules are a growth, largely. They are not a set of restrictions promulgated in any given city by the union. They are worked out over a period of years at instances of abuses. And in the third place working rules are restrictions which I believe cannot possibly affect the economics of the industry.

I recently looked over the working rules in one of our large local unions and here is the type of rule that has been set up:

Rule requiring foremen who are members of the union to employ only union members;

A rule forbidding members to borrow tools from other mechanics on the job;

A rule requiring contractors to carry a bond which fully protects the members of the union for their wages;

A rule requiring that a contractor elect to come under workmen's compensation;

A rule requiring that the foreman shall notify and authorize the physician of any injury to a member on the job;

A rule against a so-called kick-back in wages;

Another rule requiring that the worker keep a written employment record;

A rule forbidding working with nonunion men;

A rule regulating overtime.

Mr. O'CONNELL. Two of those rules, the first one and the next to the last one, seem to be rules which relate to closed shop.

Mr. TRACY. That is right.

Mr. O'CONNELL. And one or two of the other rules that you mentioned would seem to be an attempt to enforce what might already be a provision of existing law.

Mr. TRACY. In a State or nationally.

Dr. LUBIN. Mr. Tracy, are there any rules that you know of in any of your locals which limit the amount of work a man can do a day.

Mr. TRACY. No. I shall answer that directly "no". I have seen in the public press statements, and I have heard it said by contractors that union men sabotage a job, but if we go to figures we will find a steady curve of efficiency upward by building-trade workers. The very fact that the labor bill is falling is an indication of increased efficiency. No one is capable of saying that a union limits production. Jobs differ, and what might be a good day's work on one job may be impossible of fulfillment on another. Moreover, production must be seen in relation to quality of work.

In my own organization we have constantly striven to give the highest quality of local performance. Some of our local unions require their members to correct mistakes and faulty work without any additional expense to customer or contractor, thereby guaranteeing to the employer his services. We believe that the critics of the building trades who talk glibly about sabotage are doing it merely for a sinister purpose. Until there are work standards set up for each craft by an authorized agency, no one has the right to say that union limits production. To my knowledge, such statements have never been supported by facts, and I know from personal experience that unions do not limit production on any type of job.

Dr. LUBIN. In other words, as far as your own union is concerned, there are no rules and regulations which say that a man cannot do more than so many units per day.

Mr. TRACY. There are no such rules, and there will be no such rules permitted or approved. We know of none in any other trade in the building-trades construction industry. They paint us pretty black sometimes.

Mr. O'CONNELL. Mr. Tracy, from your testimony it is quite evident that you do not believe that labor or labor practices have any deterrent effect on housing construction. Would you care to give the committee your views as to why in your belief adequate dwelling accommodations are not being made available by the construction industry to the portion of our population which is compelled to live on an income of, say, from one thousand to two thousand dollars a year?

Mr. TRACY. Well, we think that is simple. At least one-third of our population does not make enough money to afford to live in a house of their own, or in a house with adequate standards. Of course those critics who assert that the way to stimulate the construction of houses is to lower the building minimum wage, already a low wage, are merely talking nonsense. It would accomplish nothing except penalization of workers who through more than 50 years have struggled to raise their own standard of living. I don't believe that the building-trades men's wages have anything to do with the problem of low-cost housing. I am not sure that the building materials are exorbitant in price. Our climate requires that all houses be heated and our American standard of living requires that there should be good plumbing. These items alone raise the standards. It is my opinion that the movement for low-cost housing, within and without the Government, has fallen short primarily not because of monopolistic conditions, but cutthroat competition in the industry. It is my opinion that you are

struggling against worker psychology. Workers are desirous of having homes, but they have not forgotten the tragic experience beginning in 1929 in lost homes and savings and equity. Workers are contenting themselves with undesirable living quarters rather than running the risk of losing all equities and all savings when another depression comes. The worker knows that a home is expensive, not only to own it but to maintain it, due to high taxes, upkeep, and so on. Lack of national unity in the housing program is largely responsible for the failure to meet the workers' fear.

Finally, I must reemphasize the point that the so-called low-cost housing is in most cases done under nonunion conditions and the organized workers of the building trades should not be held responsible for the lack of low-cost housing in this country.

The CHAIRMAN. What do you mean by cutthroat competition.

Mr. TRACY. That is a long story, Mr. Chairman, but I will be glad to go into it with you because I think we know something about it, because we, after all, are affected by it.

The CHAIRMAN. I am interested. I would like to know what your definition is and how you believe it retards construction.

Mr. TRACY. First, the general contractor as a rule has the subcontracts to let. He goes to certain subcontractors and peddles those bids, gives out false information as to what John Brown's figures are, and Bill Smith gets angry at John Brown's figures and he makes a cut on the job in order to get it. It is nothing but vindictiveness, believing that the general contractor is correct in his statement.

Then the job is cut down in price as far as the subcontractor is concerned. The materialman, very anxious to sell his material on the job, goes out and attempts to quote a price to sell it but he has competitors in the field. So we have got the materialmen fighting to sell their product on the job. We have got the general contractor peddling certain bids on the job—and I stated at the beginning he is somewhat of a broker.

We have got the employer of the workers advising the worker that he has taken this job because he wanted to take it away from Bill Brown or John Smith; he isn't going to make any money on it but he took it for the sake of giving those employees some employment. So the word is passed out, you have to hit the ball and you have to put this job in in so many days. There is very keen competition in the construction industry, in all of its branches, as we see it and as we know it. In our negotiation of contracts, we hear all of this. We don't believe it, but we are compelled to check on some of it and we find it to be facts. We find that even the contractor employers of our people are just as much responsible for the chaotic condition in this industry as anybody else—not all of them but some of them are. But there is chiseling and there is undercutting of bids in the construction industry, and with all of that, I would say that the low-cost housing should be done cheaper today than ever in the history of this country, in my estimation. It is my opinion that it is being done cheaper.

The CHAIRMAN. Well, do these practices retard construction?

Mr. TRACY. No; I don't say that they retard construction.

The CHAIRMAN. I misunderstood you then.

Mr. TRACY. No; it doesn't retard construction at all.

The CHAIRMAN. What you mean then is that these practices lead to the performance of work at less than actual cost.

Mr. TRACY. Yes; I would say that the customer, the owner, doesn't get what he is really entitled to because of that action, and the workers have difficulty in maintaining their wages and their working rules on those jobs because of conditions created by the employer.

The CHAIRMAN. Do you want us to understand that it is your experience that where cutthroat competition exists, materials are sold for less than they should bring?

Mr. TRACY. Yes; I would say in many cases material is sold for less than it should bring.

The CHAIRMAN. The common statement is that prices of materials are held up, maintained at too high a level.

Mr. TRACY. I don't know who is making those statements. I can only speak for the electrical branch of it. I am not speaking for employers and materialmen, but my experience has proven to me—and had I known you were going to ask this question I would have brought some facts over with me, particularly about the quotations of copper wire that is used quite extensively in electrical installations, and other equipment used in connection with an electrical installation, where the materialmen actually go out and sacrifice all of the profit on it merely to regain a customer. It is not my opinion that the materials used on those jobs are high. I have no such thought about it at all.

Dr. LUBIN. I am very much interested in your answers to the Chairman, Mr. Tracy. I don't know whether I get what you have in mind really. In other words, it is your opinion with all of this cutthroat competition that if the actual savings that resulted from that cutthroat competition by bidding down labor, bidding down materials, were reflected in the price I have to pay for the house, I ought to get the house cheaper than I am getting it.

Mr. TRACY. I think you are getting it cheaper under the present-day operations of all parties connected with the construction industry. I say that every employer, whether he be a contractor, whether he be a manufacturer, subcontractor, or general contractor, is entitled to a fair and legitimate profit on his work and on his investment, in order that he may pay a reasonable wage to his workers and give the customer a job that he is entitled to.

Mr. O'CONNELL. Mr. Tracy, I am a little bit puzzled as to how that particular, and what you call a desirable, situation could be brought about. It has always been my impression that our economy is premised on competition. Now when competition becomes cutthroat competition, when and how we can arrive at the desirable situation where every employer of labor is entitled to a fair profit without just departing completely from our concept of the competitive system, I am not entirely clear.

Mr. TRACY. I am in favor of the competitive system, but I am in favor of a fair competitive system among the employers.

Mr. O'CONNELL. How do we get a fair competitive system?

Mr. TRACY. I think that is our problem. You are dealing with the human element and I don't know how you are really going to get it.

Dr. LUBIN. Would a reorganization of the industry—assuming you eliminated your contractor which you say is a broker in many instances, and he gets these subcontractors to bid against one another—

Mr. TRACY (interposing). That is right, and that is a daily practice throughout the United States.

Dr. LUBIN. Let's assume you go back to the old system where the contractor was really a contractor in the sense that he hired the car-

penters and hired all the other people employed on the job, he didn't sublet his bids, would that eliminate some of that cutthroat competition?

MR. TRACY. To a great extent I would say that it would, and I think that the public would get better returns on their investment in the way of a more substantial job, and there would be less opportunity for burying the mistakes made by all parties on the job.

MR. O'CONNELL. I have no further questions.

DR. LUBIN. I would like to ask Mr. Tracy a few questions bearing on the testimony that was submitted yesterday, Mr. O'Connell. Do you people have a different rate for maintenance men in stores and factories than you do for the inside men on construction in a given situation?

MR. TRACY. Yes; we establish a maintenance rate for employees.

DR. LUBIN. Is that lower?

MR. TRACY. It is generally. There are a few exceptions where the maintenance rate has not been established. Generally, however, our local unions and the international organization which I represent, encourage and maintain a maintenance rate that is lower.

DR. LUBIN. On what theory do you recommend that?

MR. TRACY. Because of the continuity of employment.

DR. LUBIN. The reason I raise that question, one of the witnesses yesterday raised the question as to whether or not the building industry, assuming it could get to the point where it undertook real large projects, where it could say to the electrical workers, for example, "We have enough work here for a year for so many of your members"—whether or not it would be feasible under those conditions to make an agreement with the union to the effect that in return for such a guaranty, the union would make some sort of a deal on wage rates. Now, of course, in a sense you have already done that. On low-cost housing you have said to the contractor, "We will take a lower rate." It gets back to the question people have been talking about for 2 or 3 years, annual wage, and the answer is the answer given yesterday by a witness, give us a contractor who will talk business with us, and we haven't been able to find the contractor who will talk business.

MR. TRACY. And I don't think the contractor can talk business on that basis. I don't know who would underwrite the contractor's guaranty. The contractor can't do it. I don't see any possibility in the construction industry of establishing or maintaining an annual wage for the worker, because there is so much uncertainty in the construction industry.

THE CHAIRMAN. There is no continuous output of buildings.

MR. TRACY. Yes; I would say there is no continuous output. If there were such, isolated in spots, because you might have a continuation of building here in the District of Columbia for maybe 2 years; after that is completed we would have idleness within our organization for the next 2 years. As I see it, every city of any size in this country today is amply supplied with hotel facilities, office buildings, and so forth, and there is not going to be any great building program in this country. This housing program that has been going on takes up a very small percentage of the construction workers, a very small percentage of them. It is the large office buildings and large industrial plants that absorb the workers in the building-construction industry.

The housing projects are short-lived as far as the earning opportunity of the building-construction workers are concerned, but you

take jobs for industrial plants that run from 12 months to 24, and as high as 36 months, then there is some stability of employment for the workers in that community for that period of time, but I don't see any real encouragement of the building and construction industry in this country for some time, and I don't see any possibility of establishment of an annual wage. If the Government wanted to underwrite the contractors' guaranties to us for that, it might be worked out that way, but none of the Government administrations today would agree to underwrite it. The contractor can't underwrite it; the customer can't underwrite it.

The CHAIRMAN. I understand you to say that residential construction constitutes only a small part of the construction industry as a whole.

Mr. TRACY. Yes, sir; I made that statement.

The CHAIRMAN. To what degree has unionization of the mechanics proceeded in the industry as a whole? The reason I am asking that question is that you have testified in the construction of residences, 80 to 90 percent of the work is done by nonunion workers.

Mr. TRACY. That is right.

The CHAIRMAN. Does that same proportion exist in all construction?

Mr. TRACY. No; it does not exist in all types of construction.

The CHAIRMAN. The construction of office buildings and of large apartment houses, of public buildings and large projects of that kind, that sort of construction is carried on largely by union labor, is it not?

Mr. TRACY. Yes; in the last 6 or 7 years.

The CHAIRMAN. It is in the small work that you don't have the organized work?

Mr. TRACY. We don't have any control whatsoever over the earning opportunities of the worker on those small projects.

The CHAIRMAN. As I understand it, the construction of residences is such a small proportion of the construction industry that even if that were stimulated, it would not, in your opinion, bring about a degree of full employment.

Mr. TRACY. No; it would not, in my opinion. That is my opinion.

The CHAIRMAN. What future do you see for the building industry in the United States?

Mr. TRACY. It is a very gloomy picture.

The CHAIRMAN. You think our plant has been pretty well erected, do you?

Mr. TRACY. I think it has in public buildings. By that I mean private buildings, such as hotels, office buildings, store buildings of all types. I think that the large manufacturing concerns throughout this country should modernize their plants and if they had done so throughout the country, which I understand many of them are willing to start work, have appropriated money for it but have many reasons for not starting it—if the industrial field of this country undertook to expand their plant and modernize it today, it would bring about greater prosperity in this country than it would in undertaking to establish and create building of small homes.

The CHAIRMAN. What demand is there for the expansion of plants by big industries?

Mr. TRACY. I would say through modernizing, for instance the steel industry—

The CHAIRMAN (interposing). There is a difference in my mind between modernizing and expanding.

Mr. TRACY. In expanding, many of them have dilapidated buildings that have become in run-down condition. There have been no alterations or improvements on it, and there has been no improvement in the lighting conditions, the daylight and night light. There has been improvement in sanitary conditions in some of the plants and in some of the larger industrial plants they change from the old furnace into the electrical furnaces which modernize the steel industry.

The CHAIRMAN. Well, what is retarding modernization of such plants?

Mr. TRACY. I only wish I knew. I couldn't answer that question.

The CHAIRMAN. Well, of course, you can come out and discuss.

Mr. TRACY. Well, I wouldn't even want to express my opinion at this time.

The CHAIRMAN. You haven't any advice to offer this committee as to what should be done?

Mr. TRACY. I would offer none—if they could get the banks of this country to open the vaults and let the funds flow more freely to those desirous to take advantage of it.

Dr. LUBIN. One question I should like to ask—what are the dues of your organization?

Mr. TRACY. That varies, Doctor, in communities. The dues in our local unions are as a rule \$3 a month.

Dr. LUBIN. That is pretty general.

Mr. TRACY. However, there are communities where overhead is greater. The dues run from \$3 to as high as \$7 a month—all depends—he pays his dues above \$3 on his earnings; in other words, he pays a flat rate of \$3, and an assessment of 1, 2, or 3 percent on every dollar he earns.

Dr. LUBIN. In other words, the \$3 is a basic dues and if above that, it varies with his earnings?

Mr. TRACY. Of course, the apprentices' dues are lower.

Dr. LUBIN. What does a man get for his dues other than the fact that he is a member of his union?

Mr. TRACY. He gets the service of his organization locally. He gets his full protection. He has an insurance of a thousand dollars.

Dr. LUBIN. Life insurance?

Mr. TRACY. Life insurance of a thousand dollars. He also has an old-age pension of \$42 a month after he becomes 65 years of age, and has 20 years of continuous good standing in the organization. The dues which he pays, a proportion of that, stays in the local union treasury; a portion of that goes to the international office, which is divided up into the different funds of the international organization which I have outlined, legal, old-age pension; for instance, the Brotherhood carries insurance on all of its beneficial members; it is compulsory.

Dr. LUBIN. So in effect his dues cover more than the mere right to belong to the union?

Mr. TRACY. Dues cover all of the benefits in the organization and many of our local unions have in addition to that sick benefits and local death benefits; for illustration, in the city of Chicago, a man a member there, dies; he gets \$3,000, or at least his beneficiaries get \$3,000, \$1,000 from the International organization and \$2,000 from the local union. He also has a sick benefit in that local union, as many other of our local unions throughout the country have sick

benefits ranging from \$9 a week to as high as \$21 a week, sick benefits. That \$21 is exceptionally high and there is only one I know of which carries that high.

Dr. LUBIN. Have any of your locals paid out unemployment benefits?

Mr. TRACY. Not since the strike of 1922, which was the railroad strike, and we haven't paid out anything since then. In fact, we abolished that.

Mr. CHAWNER. Mr. Tracy, in a number of industries having high wages and satisfactory working conditions, and indeed they have been able to improve the wage conditions and at the same time lower the costs, even in some construction processes by improved methods—I understand in the drilling of caissons, they have developed methods to rotate the big steel caissons, instead of putting men down under pressure, and by that improved method they have been able to greatly lower the costs; and in the automobile industry, for example, was suggested as one of the industries in which that has been possible. It will increase wages and at the same time lower the cost of product by improved methods. Some suggestions of that kind have been made in the building industry, for example, in the case of homes, building houses. It has been suggested by fabrication, more complete fabrication of units, it would be possible to lower the costs. What is your judgment about that; for example, the more complete installation, for example, of electric wiring and planning in a house, in effect.

Mr. TRACY. Well, I don't know that you could do much fabrication of any equipment that goes into the small residential work. I don't know of any fabrication any more than what they are doing now. It is true of the entrance switches and fuse boxes, for protective purposes they are fabricated in the plant now. They are delivered to the shop and the electrical worker merely inserts them. It is quite different from the old system where you had to put in the individual boxes. They all come out now assembled and inserted in there in one piece. Beyond that I don't know any other fabrication that you could do on low-cost housing projects. That might be considered in a large building and in larger construction projects, but I don't believe that it could apply to electrical—and I don't know what much more fabrication could do on the plumbing. I am not a plumber, but I do know that that has materially changed in years past, that the plumber years ago was a man who handled lead exclusively, very highly skilled, and made all his own bends in lead, such as elbows and other bases of that kind, and today that all comes out cast on the job, and all he has to do is screw it together; so they have simplified it to a large extent, but I don't know how much further they could go on the housing.

Mr. CHAWNER. Some of the witnesses in this hearing have tended to say considerable lowering of cost could be effected by that method. Local arrangements make it impossible to do that and I wondered whether your organization had any objection to fabrication in the shop of units to go into a house of that type.

Mr. TRACY. We have never objected to or interfered with progress in the industry and we don't propose to.

Mr. CHAWNER. I must say I don't recall in the previous testimony electrical workers were mentioned, but some of the other groups were

Mr. O'CONNELL. I think that is correct. I think some of the other witnesses had indicated that there was what you might call a natural resistance to change on the part of various groups who are interested in maintaining for themselves as large a share of the finished product in terms of labor application as is possible, but I think that it is correct that none of the testimony indicated anything specifically as to the group that you represent, so I take it that we don't need to discuss that further with you.

The CHAIRMAN. Are there any other questions?

Mr. O'CONNELL. I believe not.

The CHAIRMAN. You have two more witnesses; who are they?

Mr. O'CONNELL. Mr. Henry J. Eckstein, of New York, and Gerard P. Lambert, of New Jersey, both of whom will discuss ideas they have and plans which in their opinion stimulated the financing of low-cost housing.

The CHAIRMAN. Thank you very much, Mr. Tracy.

The committee will stand in recess until 2 o'clock this afternoon, and an effort will be made to finish with both of these witnesses this afternoon.

(Whereupon, at 12:10 p. m., a recess was taken until 2 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:40 p. m. on the expiration of the recess.

Acting Chairman WILLIAMS. The committee will be in order, please.

Mr. O'CONNELL. I would like to say a few words before calling a witness.

During the balance of the day and in all probability all day tomorrow, the committee will hear from a group of individuals, each of whom feels that he has something to contribute toward a solution of the housing problem.

The material presented will range from plans suggesting ways of stimulating the flow of invested capital into the medium- and low-priced housing field.

Second, actual presentation of persons present actively engaged in constructing or reconstructing dwelling accommodations at prices which in their opinion at least make such accommodations available to persons in the lower income groups.

It would be a physical impossibility to present before the committee even a substantial percentage of those persons interested in housing who feel that they have an answer to the problem. For this reason it was necessary to select a small but representative group and to give to the committee some first-hand information about at least some of the proposals that are being generally discussed and at least some of the construction activity in low cost privately financed housing field, actually being done.

I should like to make one thing perfectly clear. The fact that particular proposals will be espoused here should not be taken as indicating that the committee or any member of it is a proponent or advocate of any such plan.

The witnesses to follow will present their views to the committee and the committee should not be placed in the position of having any predisposition at this time in favor of any of them.

The first witness I should like to call is Henry J. Eckstein.

The CHAIRMAN. Do you solemnly swear that in the matter now pending you will tell the truth, the whole truth, and nothing but the truth, so help you God?

Mr. ECKSTEIN. I do.

TESTIMONY OF HENRY J. ECKSTEIN, PRESIDENT, FORESTA FACTORS, INC., NEW YORK, N. Y.

"YIELD INSURANCE" AS A STIMULANT TO LOW-COST HOUSING

Mr. O'CONNELL. Mr. Eckstein, would you please give your name, address, and occupation for the record?

Mr. ECKSTEIN. My name is Henry J. Eckstein, 233 Broadway, New York.

Mr. O'CONNELL. I should like to point out that Mr. Eckstein will discuss before the committee a plan of financing construction, large-scale renting, housing projects, which is generally referred to as "yield insurance." I think it would be best to let Mr. Eckstein proceed to develop the material he has, uninterrupted, to the extent we feel able to do so, and then ask him any pertinent questions after he has had an opportunity to explain fairly well in detail what the plan is.

The CHAIRMAN. Have him state his experience in—

Mr. O'CONNELL. I think he should do so now.

Mr. ECKSTEIN. I think I would like, Mr. Chairman, with your permission, to state that in connection with the beginning of my presentation I will try to weave it in so it will be clear to you. I will stop at the end of the presentation of background. I will stop in case you want any further information.

Since 1906 I have been engaged in business, first in the wholesaling of lumber, more recently commercial financing. In each instance as owner executive. I have during all of this period actively participated in a number of public and semipublic activities, including trade association work, representation of wholesale lumbermen on the lumber code authority, social work activities, and a variety of economic pursuits. Through the handling of investments largely of fiduciary nature, I have had active experience in mortgage and other real estate investments.

In 1937 Msgr. John A. Ryan, the late Gov. Paul M. Pearson, and I, organized and then constituted the executive committee of the national housing committee. The passage, shortly thereafter, of the Wagner-Steagall Act satisfied our immediate concern for public, subsidized housing and we turned to the possibilities of low-cost housing through private initiative. We prepared and completed a survey of the income groups for which the largest housing shortage existed. The results were published in *The Housing Market*. We then proceeded to probe as to how that shortage could be met by private industry. This particular task was allotted to me. We approached this problem from every conceivable angle, three of which, however, were immediately recognized as the crux of the situation:

First. What could be done by industry towards reducing construction costs and towards lowering the basic price of building materials, and towards the simplification of, and elimination of waste in, their distribution.

Second. The reduction in cost of financing, especially through inducement to capital to enter the low-cost-housing field on a moderate income, nonspeculative basis, and as investment. It was apparent that the effect of the lower cost and greater availability of mortgage money tended to increase the profit opportunities of equity money, and that the advantages to large capital, were it to enter the field, obtainable through the lower costs of planned volume construction and the pressure on markets of purchasing power, would probably be utilized to increase profits rather than to lower rentals.

Third. There is a third angle, which appealed to many of us as worthy of consideration, namely—the necessity of offsetting the numerous difficulties imposed on real-estate and mortgage investment by the impact of cyclical fluctuations.

The depression, and in fact the whole history of real estate, definitely shows that alternately upward and downward swings in the earning power of real estate is equally as great a problem as the initial cost of production of real-estate facilities.

These interests of mine, through divergency of experiences of a cumulative nature, brought firmer convictions regarding the housing problem. From the social point of view and that of the public interest I have for long understood the need of low-cost housing. From the investor's point of view I have suffered from the inadequacy of the old mortgage system. From the industrial angle I have observed the reasons why private industry has failed to meet the need of low-cost housing. Economic studies have brought the realization of importance to recovery of a widespread building program.

Have I outlined my background sufficiently?

Mr. O'CONNELL. Sufficient for my purposes.

Acting Chairman WILLIAMS. Go ahead.

Mr. ECKSTEIN. It was then the yield insurance plan came to my attention. This plan has been devised by Mr. Frederick M. Babcock, Assistant Administrator and Director of the Underwriting Division of the F. H. A. It is, and this must be emphasized, not a plan endorsed by the F. H. A. itself but advanced by Mr. Babcock solely in his individual capacity.

I shall for a moment longer defer presentation of the yield-insurance plan in order to bring out a few significant points. It immediately impressed me, and subsequent study and investigation has increasingly confirmed this impression, that the yield-insurance plan is a vital, original, and unique contribution leading to a solution of the housing problem. It provides an inducement to large pools of capital to enter the rental housing market. It places primary emphasis on yield and secondary emphasis on capital gains. It includes the protection of capital and the prevention of the damage which results from the speculative methods which usually surround real-estate ownership. It brings about a separation of promotional activities and long-time management combined with more or less permanent investment. In that way it identifies the motives of investors into wholesome assured income channels. And finally, it meets the problem, so frequently overlooked, which arises as a consequence of the violent fluctuations in rental income.

The following description of yield insurance is as originally prepared by Mr. Babcock:

This memorandum presents the yield-insurance plan for the creation and permanent operation of rental housing projects. The plan provides for the financing of projects by private capital, without the use of mortgages, and with provision for a guarantee of a minimum rate of return.

Two plans are offered, one generally applicable to the financing of rental housing, the other applicable solely to projects which involve slum clearance or the rehabilitation of blighted areas.

PLAN TO FINANCE RENTAL HOUSING

Mr. ECKSTEIN (reading):

Plan A is designed to provide for moderate rental housing in both urban and suburban locations where the costs of production and the rentals available bear a reasonable relationship.

1. The plan contemplates the investments of funds of responsible investors in the direct ownership of real estate by permitting them to acquire sites, plan rental housing projects, erect structures, and own and manage them thereafter. Such investors may include conservative investment groups or associates and the trustee custodians of investment funds such as savings banks, trust estates, and life insurance companies. Such ownership may be accomplished, if desirable in particular cases or States, by the ownership of the common-stock shares of subsidiary realty corporations. Such shares, however, may be owned only by such qualified responsible investors.

2. The total costs incurred up to the completion of a project are ascertained and if approved become the "established investment." Allowable costs include all actual outlays. They do not include interest during construction. (This last item, interest during construction, is allowed under plan B. It may be well to consider allowing such interest as a cost outlay and including it in the established investment, under appropriate circumstances, under plan A as well.)

3. Project owners are not permitted to mortgage properties or to create any form of funded indebtedness.

4. The Federal Housing Administration, after amendment of the National Housing Act, will accept such projects any time prior to commencing construction for yield insurance, provided defined minimum standards are complied with.

5. Yield insurance, for this purpose, consists of a guaranty of a minimum yield of 2½ percent per annum on the amount of the established investment which remains invested in any year. If a project, in any year, earns less than 2½ percent, the Federal Housing Administration will pay, in cash, immediately upon verification of the validity of the claim, the difference between 2½ percent and the amount actually earned.

6. Accounting for this purpose will reduce the original established investment on a straight-line basis at the rate of 2 percent per year of the depreciable portion of the original investment (i. e., total investment exclusive of the land). It will also reduce the established investment in an additional amount equal to the earnings in excess of 5 percent per year.

7. Properties may be sold, but if sold shall not continue to receive the benefits of yield insurance unless the purchaser would have been eligible for such insurance at the inception of the project.

8. The total benefits collectible under the plan are limited to 10 percent of the original established investment. That is, when the aggregate amount of paid claims equals 10 percent of the original established investment, additional claims cannot be collected from the Federal Housing Administration and the insurance ceases. No claims are collectible after 20 years from original date of insurance.

9. The Federal Housing Administration collects an annual premium amounting to one-eighth of 1 percent of the portion of the established investment remaining unrecovered in each year. That is, the premium amounts to 5 percent of the coverage (one-eighth of 1 percent divided by 2½ percent).

PLAN FOR SLUM CLEARANCE

Mr. ECKSTEIN (reading):

Plan B is designed to provide for low-rental housing in slum and blighted areas of cities where the costs of land acquisition and rebuilding and the rentals available tend to be disproportionate.

1. The plan contemplates the creation of local corporations to acquire sites in slum or blighted areas, demolish existing structures, plan rental housing projects, erect new structures, rehabilitate old structures, and own and manage the properties thereafter. Under defined conditions, such corporations are to have the power of condemnation.

2. Such corporations may secure capital by the sale of common-stock shares only, to the public and to trustee investors. Corporations are not permitted to mortgage properties or to create any form of funded indebtedness.

3. The total costs incurred up to the completion of a project are ascertained and if approved become the established investment. Allowable costs embrace all actual outlays, including actual interest paid during construction provided such interest is at a rate not in excess of $3\frac{1}{2}$ percent per year.

4. The Federal Housing Administration, after amendment of the National Housing Act, will accept such projects any time prior to commencing construction or rehabilitation for yield insurance, provided defined minimum standards are complied with.

5. Yield insurance, for this purpose, consists of a guaranty of a yield of $3\frac{1}{2}$ percent per annum on the amount of the established investment which remains invested in any year. If a project, in any year, earns less than $3\frac{1}{2}$ percent, the Federal Housing Administration will pay, in cash, immediately upon verification of the validity of the claim, the difference between $3\frac{1}{2}$ percent and the amount actually earned.

6. Accounting for this purpose will reduce the original established investment on a straight-line basis at the rate of 2 percent per year of the depreciable portion the original investment (i. e., the total investment exclusive of land).

7. Earnings in excess of $4\frac{1}{2}$ percent shall be devoted, in the order named, to (1) expenditures for needed or desirable improvements, repairs, maintenance, and alterations; (2) accumulations in and maintenance of a reserve for the foregoing purposes, the total of such reserve for the foregoing purposes, the total of such reserve not to be allowed to accumulate to more than $7\frac{1}{2}$ percent of the original established investment; (3) earnings in excess of the two preceding items shall be divided equally between additional insurance premiums and additional return of investment.

8. There will be no direct regulation of rents by the Federal Housing Administration, but management supervision is contemplated.

9. The total benefits collectible under the plan are limited to 14 percent of the original established investment. That is, when the aggregate amount of paid claims equals 14 percent of the original established investment, additional claims cannot be collected from the Federal Housing Administration and the insurance ceases. No claims are collectible after 20 years from original date of insurance.

10. The Federal Housing Administration collects an annual premium amounting to one-fourth of 1 percent of the portion of the established investment remaining unrecaptured in each year. That is, the premium amounts to 7.1 percent of the coverage (one-fourth of 1 percent divided by $3\frac{1}{2}$ percent).

It is important to emphasize that the annual reduction of the originally established investment, at the rate of 2 percent of the depreciable portion of the original investment, is to be an actual return of invested money and not just a bookkeeping transaction.

In the description of the yield-insurance plan, just read, it will be recalled that the total benefits collectible in the form of claims are limited to a total of 10 percent of the original established investment under plan A and of 14 percent under plan B. The coverage is also limited to 20 years. It is of interest to note in this connection that our figures and test calculations indicate that these percentage restrictions are really not essential from the point of view of prudent underwriting. We also found that the coverage under plan B could safely be extended from 20 years to 25 years. These possibilities could be further explored.

OBJECTIVES OF THE YIELD-INSURANCE PLAN

Mr. ECKSTEIN. I shall continue reading:

The objectives of the yield-insurance plan are set out as follows:

1. To make private capital available to housing. The present mortgage system operates with difficulty because there is a dearth of funds available for equity investment except at rates which compensate for highly speculative risks. This situation invites the creation of apparent equities by deliberate overvaluation.

2. To provide an investment outlet for funds of investors. It is presumed that the competition for investments, especially mortgage investments, has and will result in a condition where reasonably safe investment of available funds is and will be increasingly difficult. It is to be noted that the only alternatives in the residential mortgage field are withdrawing from the field or making and purchasing very high percentage mortgages.

3. To secure the erection of housing where most needed; in slum areas, for lower-income groups, in smaller as well as larger cities.

4. To produce real-estate facilities at lower costs of construction. This purpose is desirable as a safeguard against cyclical fluctuations.

5. To stimulate the construction of good properties. It is evident that, in the recent periods of building activity, principally 1920-29, speculative building with the support given by competition between lenders produced a quality of physical security behind mortgage investments which was not of a sufficiently high standard. One objective of the proposed program is to make certain that investment is made in better properties, surrounded by better community environments. The social benefits of the program—namely, improved health, life extension, and improved social environments—need not be considered as the major objective but are accomplished as a natural accompaniment of the program.

6. To remove the speculative motive, insofar as possible, from real-estate operations. The program proposes that the ownership of real estate be placed in strong hands, interested primarily in the rate of return over a long period rather than in rapid speculative gains. The stabilizing effect on realty rentals and values, implied by such strong ownership, is of major significance.

7. To prevent the unnecessary further extension of governmental ownership of housing and housing investments.

8. To provide the major investor in real estate (today, the mortgage lender) with real control over his investments. This should lead to better maintenance, lower rehabilitation costs, and longer effective economic lives of properties.

9. To provide a relatively safe investment which embraces a hedge against diminished purchasing power of the dollar.

10. To create a condition in which construction activities are more attractive in times of recession, less attractive in boom times. If this purpose can be achieved it will mean a partial lessening of the intensity of conditions in depression periods and an automatic brake on speculation in boom times.

NECESSARY LEGISLATION FOR YIELD-INSURANCE PLAN

Mr. ECKSTEIN (reading further):

State legislation will be required to permit trustee investors to invest in real estate or in the shares of realty corporations. Similar legislation has already been provided by the New York State Legislature. Such legislation should be modeled on the proposed Federal legislation.

State legislation to provide for the creation and control of the housing corporations in plan B will also be required. (Proposals of this nature have recently been introduced in some States, e. g., New York and Illinois.)

Federal legislation should provide for "yield insurance" and should take the form of an amendment to the National Housing Act. Provisions should include:

1. Projects to be submitted to the Federal Housing Administration prior to completion of construction for approval for yield insurance.

2. Definition of eligible projects including neighborhood and structural standards, verifications of reasonableness of costs and economic soundness, and what constitutes a "slum" (plan B).

3. Provisions defining rights of the investors, eligibility of realty corporations, contracts of insurance (noncancelable), methods of accounting, etc.

4. Definition of types and qualifications of investors eligible for such insurance coverage.

5. Provisions covering the computation of claims, the payment of premiums, and the expiration or lapsing of coverage.

The State legislation would be so drawn that it limits the percentage of the total assets of trustee investors which may be invested in the direct ownership of real estate. Other restrictions might be necessary including the consent of State insurance commissioners, etc.

This memorandum on the yield insurance plan from which I have been reading has been submitted for criticism to a number of important persons in the fields of banking, finance, housing, real estate, building constructions, and the administration itself. We have received no valid objections as to the practicability and soundness of the plan. There have been some constructive suggestions as to details (herein considered) and some evidences of resistance arising in the expected tendency of some to cling to traditional patterns and existing interests.

Mr. O'CONNELL. I am violating the rule that I made but I thought it might be well if we would attempt at this point to summarize again the main features of the plan so as not to attempt to absorb too much without recapitulation.

As I understand it, the plan envisages encouragement of large-scale rental housing projects only, without mortgages and financed 100 percent by equity capital; that it is your proposal that some Federal agency insure a minimum return on equity capital so invested of 2½ percent per annum.

Mr. ECKSTEIN. On one plan.

Mr. O'CONNELL. On one plan, on plan A, with a maximum obligation to pay 10 percent under plan A, and 14 percent under plan B. Are there any other features of the plan—

Mr. ECKSTEIN (interposing). That the insurance is also limited to 20 years and that the income withdrawals are limited to 5 percent and 4½ percent on the plans A and B, respectively, any excess of income to be used to accelerate the depreciation described at 2 percent per annum for yields determined; in other words, a plan must charge off 2 percent a year before he figures any yield. If the yield is less than 2½ percent in any one year, he is covered by insurance to a total extent of 10 percent and a period not longer than 20 years. Anything in excess of 5 percent is returned to the investor as return of principal. It is something like a limited-dividend project.

Mr. O'CONNELL. What would happen at the end of the 20-year period?

Mr. ECKSTEIN. He would own his property without insurance at an amount which will be depreciated at less 40 percent of cost.

Mr. O'CONNELL. But at that point, from that point on, there would be no ceiling on the return that the investor could make. Is that correct?

Mr. ECKSTEIN. As the plan is at present contemplated, no, there would not be excepting that I think a great many natural considerations would determine any prudent investor to limit his return and continue certainly at that time to increase, if anything, the value of depreciation.

Mr. O'CONNELL. So there is no attempt in the plan to continue to insure the low rental character of the property?

Mr. ECKSTEIN. No, sir.

Mr. O'CONNELL. And the low-rent character of the project in the interim is only incidental?

Mr. ECKSTEIN. The low-rent character is assumed for a number of reasons. Would you like me to go on with them at this time?

Mr. O'CONNELL. If you are coming to them.

Mr. ECKSTEIN. I haven't them written in here. I have some notes on it that supplement the notes.

Mr. O'CONNELL. Well, I merely was interested to know how effective the plan was in insuring the low-rent character of the project.

Mr. ECKSTEIN. I might as well answer that at this moment. The plan places no limitation on rentals for a number of reasons. In the first place, there is no incentive under the plan to aim at rentals in the higher ranges or to step up rentals unreasonably. Contrariwise, there is a incentive for, and judicious investment practice would dictate, building for lower-income groups, where the greatest shortage of housing and stability of tenancy exists.

Second, market pressure will, in a measure, tend to keep rentals down.

Third, with their rental limitations, it would deter investors at times of low industrial activity and encourage projects in boom times, which would tend to create the speculative and high cost ventures that the plan seeks to avoid.

Mr. O'CONNELL. Possibly I haven't it clearly in mind, but referring to your first statement as to there being no incentive to have the investor seek a higher return on his investment, it would seem to me that that wouldn't necessarily follow:

Mr. ECKSTEIN. Would not?

Mr. O'CONNELL. Would not follow, that is, to the extent that the rents are high enough to produce a return, let us say, of 6 or 7 or 8 percent, the investor would receive that return, would he not, and would merely operate to reduce the unamortized portion of the cost?

Mr. ECKSTEIN. After the 20 years.

Mr. O'CONNELL. But if he received a stated or net return of 8 or 10 percent for a period of 5 or 6 years, why, then, that would merely mean that his 20-year period would have been shortened, would it not?

Mr. ECKSTEIN. No; he can only withdraw 5 percent a year, you see, in the first 20 years.

Mr. O'CONNELL. What happens to the excess?

Mr. ECKSTEIN. It increases the depreciation thereby, or rather returns principal, actually in cash to himself.

Mr. O'CONNELL. To himself?

Mr. ECKSTEIN. In excess of the required 2 percent, and presumably reinvests that.

Mr. O'CONNELL. Presumably?

Mr. ECKSTEIN. He returns his capital. I suppose you can spend capital if you want to.

Mr. O'CONNELL. It seemed to me to follow that that doesn't operate as a very effective brake on the rental.

Mr. ECKSTEIN. It does not, Mr. O'Connell, operate as a compulsory—but we have carefully considered all of the conditions and we feel

it would be a very imprudent investor who would put all of his capital into a project understanding conditions today, knowing where the shortage and the market is over a long period of years who would not aim from the beginning at the lowest possible rental, because it shows that therein he would get the best possible return from an income point of view.

Mr. O'CONNELL. That is what I am getting at, and the main thing you rely on is the enlightened self-interest of the investor?

Mr. ECKSTEIN. Yes; which I think in this type of investor who has no speculative interest, presumably, is very important, and is quite a brake.

Mr. O'CONNELL. Well, I think you might continue.

Mr. ECKSTEIN. The memorandum, as I stated, has been submitted to a number of people, important persons in the field of banking, finance, housing, real estate, building construction, and the administration itself. We have received no valid objections as to the practicability and soundness of the plan.

There has been some resistance arising in the expected tendency of some to cling to traditional patterns and existing interests.

One of the chief criticisms received, and which we have from two or three sources, is that it will not solve the high cost of housing. It is well expressed by a Government official, who desires to remain anonymous, in the following letter:

I must say I am dubious about its ultimate worth. On the surface it looks very inviting, but I believe that the real solution is to be found in correcting the more basic weakness which you so well summarize on page 9 of your paper. In short I am inclined to regard yield insurance as a convenient means of temporizing with the more fundamental elements. In other words, it may serve as so much window dressing to attract capital, but the supporting structure of the production process will not have been corrected.

To which we responded:

Your appraisal of yield insurance is really quite accurate. We suggest that no scheme of finance can be relatively as important as the fundamental problem of lowering the production cost of housing. We are willing to subscribe to this idea 100 percent. At the same time, we still insist that a suitable method of permanent financing is an essential ingredient in connection with carrying out and securing the benefits of lowered production costs when, as, and if we are ever able to achieve them. In other words, it is a common fault of reasoning to criticize a plan because it is fragmental when the plan itself is frequently designed to be the solution of a fragment of the major problem. The answer to your criticism is, therefore, in our opinion, simply this—that both fragments need solution. The solution of either fragment individually remains only a fragmental solution.

In turn the original writer answered:

Your comment on my previous letter is an interesting observation. I recognize the force of the argument, but at the same time, it is clear that failure to correct the problems of construction would serve as a distinct deterrent to any program of long-term financing. However, the whole problem is much broader in scope than the technique which is involved, being influenced materially by one's philosophy of the system of business enterprise.

A most interesting observation is the following verbatim excerpt from a telephone comment by the chief executive officer of one of the country's largest construction and real estate corporations:

The plan is practical and feasible and would obtain the objectives in mind. However, is it wise now to introduce something new into our economy? This is far reaching, it would affect real-estate values on a large scale and has the possibility of reducing rents. It is all right if you are interested in a new way, but is it wise to upset things, and it will keep the present building operators out of the market.

A limited number of persons have expressed views in personal interviews and cited problems which the yield insurance plan presents. The following is a summary of these points of view together with our comments thereon:

The yield insurance plan relates to rental housing only. Whether the principle is applicable, through some sort of modification or adaptation, to owner-occupied housing has not been sufficiently explored. In fact, the success of the insured mortgage under section 203 of the National Housing Act leads to the conclusion that the examination of the yield insurance plan in that field of housing is either unnecessary or premature. There can be no serious debate on the question whether rental housing or home ownership should be promoted. Both types of housing are necessary in our urban ecology. Most commentators point out that individual home ownership is more desirable than rental housing and that the latter should be provided only to the extent that individual home ownership cannot be achieved.

The basis for the suggestion that the ownership of unencumbered real estate is superior to the use of mortgages is indicated in the objectives outlined above. It is felt that past experience has demonstrated that high percentage mortgages with rigid amortization schedules cannot withstand ordinary rent fluctuations and that they invite dangerous overfinancing. In addition, they place the construction and management of properties in speculative hands to the detriment of mortgages and tenants.

A recent report of the Twentieth Century Fund and the views expressed by a number of prominent economists indicate that a greater stability of our economic structure would be achieved if there were less investment in evidence of debt and greater direct ownership through stock shares. The application of this principle to realty investments implies the direct ownership of real estate as opposed to the purchase of mortgages.

A very practical argument closely related to this question is that alternative forms of investment are rather limited at the present time. This is discussed elsewhere.

Neither plan A nor plan B provides directly for rent limitation, but does provide strong motivations for establishing reasonable rentals and, in the case of plan B especially for the progressive reduction of rents.

(Chairman O'Mahoney assumed the chair.)

Mr. ECKSTEIN (reading further):

Some interests point out that the yield-insurance plan will result in the construction of many new properties and will reduce, through competition, the earnings and value of existing properties. However, it would seem that considerable new construction, either through private or subsidized means, or both, is inevitable and that the effect on existing properties is the same whether the yield insurance plan is used or not.

The purchase of mortgages, even with margins of safety represented by equities, carries with it the chance of loss but not a chance of compensating enhancement. While mortgage insurance offsets this difficulty to some degree, it has been pointed out that the rate of return on well-selected real estate owned outright is greater than on mortgages. Yield insurance replaces the insurance protection in another form.

Trustee investors may be expected to want to invest in types of real estate other than rental housing, such as office buildings, stores, etc. The opportunities to own the real estate now owned by chain stores is a case in point. If yield insurance is provided to induce such companies to enter the housing field, it will have enabled them to establish the principle of direct ownership, which principle will require establishment before the wider field of real-estate investments is likely to be open to them.

Custodians of trustee funds complain of the lack of adequate outlets for investment. They have placed large sums in low-yield Government bonds. They feel that the legislative restrictions on their fields of investment require revision. They point out that a plan which permits them to make investments in real estate would reestablish a desirable flexibility in their portfolios and that the mere fact that this is a new departure is an adequate argument against such a scheme.

In any event, most real estate brokers say it will be far better to have housing owned and managed by large investors than by municipalities under the program of the United States Housing Authority.

Mr. O'CONNELL. Do I understand you to mean that the institutional investors of the type that would be most appropriate to use this plan are in your opinion in favor of revision of the State laws that restrict their investment and that they are in favor of the plan that we are discussing now?

Mr. ECKSTEIN. I don't think I could say that they were strongly in favor of it. I think there is a division. There are some such investors who are in favor of it, and others who are not, because they are traditionally and conventionally opposed to it. The fact remains that in New York State, the moment the law was passed, one company, as you know, immediately took advantage of it.

Mr. O'CONNELL. You mean the law permitting institutional investors to invest in equities?

Mr. ECKSTEIN. There is one insurance company, not in New York State, one of whose officials privately stated to us that he was very much interested in his own personal thinking (he was quite careful to emphasize it was not a company opinion) in ownership holdings, and I believe there was such testimony here.

Mr. O'CONNELL. As a matter of fact, your proposal referring to the experience that the Metropolitan Life Insurance Co. are undergoing at the present time, would be to encourage that particular type of development by guaranteeing a minimum return.

Mr. ECKSTEIN. We believe that would be a further inducement to insurance companies.

Mr. O'CONNELL. But it does envisage the same kind of development that the Metropolitan is undertaking without such inducement.

Mr. ECKSTEIN. Quite right; yes, sir [reading]:

It has been suggested that real estate owned will not constitute a sufficiently liquid form of investment for a trustee investor. Experience will indicate that mortgages are really no more liquid, especially high-percentage mortgages.

Mr. O'CONNELL. Of course, that would not be entirely true of F. H. A.-insured mortgages because I have been told at least that they are comparatively liquid, at least much more liquid than the conventional or traditional mortgage.

Mr. ECKSTEIN. If I am correct, the experience with F. H. A.-insurance mortgages has been only during a period of rather increasing demand for investments. I think in a period such as 1930-32, it would be very difficult for a large savings bank or insurance company to dispose of a large, even F. H. A. mortgage very quickly, and I doubt whether a mortgage is ever more liquid than a piece of property.

Mr. O'CONNELL. So it is your general belief that the equity ownership, in times when you need the liquidity, is as liquid as mortgage ownership.

Mr. ECKSTEIN. Of course, as this thing is drawn here, the raising of a mortgage is permitted. I suppose—and we haven't considered this—it might be possible with permission from the F. H. A., a mortgage might under certain conditions be permitted. I have been thinking, if I may say so, of Mr. Bruere's statement the other day as to the position of savings banks and their need for liquidity. I think that if I were president of a savings bank and if I were faced with a run on my bank, I would rather be in a position where I owned a piece of property on which I could then raise a mortgage, however unsatisfactory percentage-wise it might be, and hold onto my equity than to have to dispose of a mortgage already owned at a sacrifice at such a

time. However, we may have different opinions. That is my opinion. [Reading further:]

This question assumes that the yield insurance plan is designed solely to provide an investment outlet for life-insurance companies.

You see these are questions we receive from various people and most life-insurance people.

The plan proposes to attract all classes of investment funds except those which demand or require high rates of return of unusual opportunities for capital increment. In fact, some commentators have felt that the real-estate investments of life-insurance companies should be confined to the ownership of the shares of realty corporations and that no single life-insurance company should be permitted to own more than 49 percent of the shares of any particular realty corporation.

Mr. O'CONNELL. It is true, is it not, that the plan is designed to encourage this type of investment by the large institutional investors, such as life-insurance companies?

Mr. ECKSTEIN. To encourage, correct.

Mr. O'CONNELL. Wouldn't it as a practical matter be almost limited in its operation to life insurance and savings banks?

Mr. ECKSTEIN. Yes.

Mr. O'CONNELL. And large trustee investors, investing in large-scale projects which would assume large aggregations of capital?

Mr. ECKSTEIN. Yes, I think from a practical point of view you couldn't today, maybe unfortunately, conceive of a large trust company acting in a fiduciary capacity having a project of this kind, and then issuing participations to the beneficiaries of various trusts; in addition to which in certain States, New York State at least, it is not permitted for, I think, rather unfortunate and foolish reasons. But I think it would be limited to insurance companies and savings banks, but that is quite a large field.

Mr. O'CONNELL. I was merely addressing myself to the question whether or not it was desirable to encourage ownership of large-scale rental housing projects in that field, and the answer seemed to me to indicate that result would not flow from the plan.

Mr. ECKSTEIN. I hadn't, quite finished the answer. There is another point there.

Dr. LUBIN. Might I raise a question there? Isn't it generally felt by some insurance companies that they already have too much real estate on their hands?

Mr. ECKSTEIN. Yes; I think they have, but they have the wrong kind of real estate. They have real estate that they have acquired by compulsion and reorganization and the result of mortgage foreclosures.

Dr. LUBIN. Despite the fact that they already have this on their hands, you feel it is desirable for them to take on other types as well?

Mr. ECKSTEIN. I happen to be a trustee for a number of trusts at this time. We have such real estate and we have such mortgages and I would be delighted to have a chance to average out. I don't know how else I can do it. If I had control and I felt I had the ability and I believe insurance companies should feel they have the ability to enter into projects and average out—

The CHAIRMAN (interposing). You feel, generally speaking, that equity ownership is better than a mortgage ownership?

Mr. ECKSTEIN. Complete ownership, yes, sir.

The CHAIRMAN. But when an insurance company or other mortgagee has foreclosed upon any property, then the company has acquired the equity.

Mr. ECKSTEIN. Yes, sir; but under what conditions, Mr. Chairman?

The CHAIRMAN. But it has acquired it. Probably in most cases at the mortgage value, and not at the original appraised value.

Mr. ECKSTEIN. But an inflated mortgage value in most cases.

The CHAIRMAN. Of course, that amounts to a criticism of the values upon which the mortgages were originally based. I wonder if you care to make that as a general statement, characterizing the mortgage situation throughout the country.

Mr. ECKSTEIN. Very gladly, Mr. Chairman, for this reason, that the experience of the last 10 years very definitely shows, to me at least in my experience, that we have acquired properties on which we took mortgages at a time of inflation without very careful consideration on the one hand, and mortgages at that time, we must realize, without any provision for amortization, and that is the reason why these properties today, when they are involuntarily acquired, are very poor investments as real estate and are overvalued.

I think my own experience has been that our losses have been in these so-called guaranteed mortgages at that time; those mortgages that we took without guaranteeing and where our own individual judgment rather prevailed, proved much more satisfactory on the whole. It is just because their mortgages were poor mortgages when they were taken, and most people knew it. And one of the advantages, as I see it—and I will dwell upon this somewhat a little later herein—is that today the insured mortgage is not a satisfactory investment excepting by reason of the insurance in many instances.

The CHAIRMAN. I am glad to have your expression.

Mr. ECKSTEIN. I think I am not alone in that opinion, Mr. Chairman. [Continuing reading:]

This argument presupposes that life-insurance companies would become powerful to such a degree that the general welfare would be adversely affected. It is difficult to imagine how the strong ownership of real estate is antisocial. [That was the point made by an insurance executive.] It appears much more likely that the treatment of tenants and the general public would be much better than it is in the hands of speculative owners of small equities.

It is also pertinent to mention that trustee investors in European countries are permitted to own real estate on a vast scale and that social, rather than antisocial, effects are reported.

In any event, it is certain that life-insurance companies should not be excluded from participation in the plan.

The plan requires trustee investors to adopt a new concept: The ownership and management of real estate. Can they do this properly? As a result of the depression these companies have obtained a most liberal education in such matters. Most of such institutions are in close contact with competent management firms throughout the country.

One idea that has been advanced is that, at least during a transition period, there be a plan providing for the insurance of a mortgage of 80 percent under section 207 of the National Housing Act and for yield insurance guaranteeing a minimum rate of return on a 20-percent equity. This plan serves no purpose and is, itself, unsound and inexpedient: (1) It is illogical to have both mortgage and equity owned by an institution. It amounts to a fiction of lending money to one's self. (2) Insurance of a yield on the equity automatically guarantees the mortgage, making mortgage insurance superfluous. (3) The risk in equity investment is relatively great, resulting in the necessity for a high premium for the insurance—so high, in fact, that it would be a material factor in the establishment of rentals. (4) The investor would, through this device, avoid none of the responsibilities of ownership and management. (5) If the statement that even yield insurance is superfluous to induce investors to invest directly in real estate is true, there would not need to be a transitional period.

Several comments have indicated that the direct ownership of real estate by institutions or by subsidiary corporations does not require more than State legisla-

tion permitting such ownership and that the guaranty of a rate of return through yield insurance is superfluous—at least in plan A. The purposes directly served by the provision for yield insurance include the following: (a) The presence of Federal legislation providing for yield insurance will aid in securing the needed State legislation which would then be of the enabling character; (b) policyholders, savings depositors, and stockholders will find little or no criticism to bring when ownership of real estate is introduced, if the guaranty of yield is used; (c) yield insurance provides a degree of Federal influence which should offset general criticism of institutions for changing to the new form of investment; (d) without yield insurance, the slum-clearance plan, plan B, would probably be inoperative because investors would not elect to take such deals in the absence of the guaranty; (e) yield insurance is yield insurance and is intrinsically worth while. While many investing corporations will operate on a scale which might provide adequate self-insurance, other institutions would have a definite insurable risk to cover; (f) Yield insurance will tend to carry the benefits of the program to more remote localities and smaller cities than might be reached without insurance of yield.

As presented above, plan A provides for an insured yield of $2\frac{1}{2}$ percent and plan B for $3\frac{1}{2}$ percent. If money rates were to change in some future market, might not the provision for specific rates result in an excessive guarantee or an inability to attract investment funds? The answer to the problem would appear to be to give the Federal Housing Administration Administrator certain powers with respect to the setting of minimum limits in relation to rates on Government securities. However, this power should not include the right to change the contracted rates in previously insured projects.

More recently we received a number of interesting and constructive letters. In reading these, I shall omit certain paragraphs of an introductory, personal, or other not pertinent nature.

The first is a letter from Mr. Bernard J. Newman, managing director of the Philadelphia Housing Association. He says:

As you know, I have studied very carefully the proposed yield-insurance plan for financing rental housing projects. I also have had, as you know, the advantage of a conference with you and Mr. Babcock regarding the objectives of this plan and the details of its application.

The plan appears to me to be both desirable and practical. It is an insurance of safety of the principal invested in housing and security of income on such investments. It should appeal to large corporate investors while the limitation on the net return is a guarantee against abuses from large corporate ownership of dwellings. This is my judgment both as to part A and part B of the plan.

At first I was doubtful as to whether economies of operation would be encouraged when the investors were guaranteed a minimum yield, but further study impresses that such economies would not be discouraged since "the total benefits collectible are limited to 10 percent of the original established investment" and "no claims are collectible after 20 years from the original date of insurance." Moreover, the required amortization will ultimately reduce the operating costs and will then permit the adjustment of rentals downward.

As I stated to you and Mr. Babcock in our conference, I think it is exceedingly important that there should be a minimum of Government interference, entailing unnecessary expense to investors, with the development and operation of projects under this plan. I also believe that interest on the capital going into projects during construction should be permitted. Apparently the prohibition is founded on the theory that investors would use funds not now otherwise employed. It is possible that large investors now have unemployed funds to put into such construction but this plan is in no wise an emergency plan and will extend over periods when very few corporations would have unused funds and might wish to transfer funds in less stable forms of investment to rental housing projects. Their inclination to act should not be impeded by denying them the right to include interest on their capital investment while used during construction.

If my opinion is of any value you may or may not attribute it to me as you see fit.

The next is from Mr. Herbert U. Nelson, executive vice president of the National Association of Real Estate Boards, who writes:

Mr. Babcock has sat in with us from time to time in our conferences and we have discussed housing and also his yield-insurance plan. We believe that the yield-insurance plan has immense possibilities and should have most careful consideration by all those interested in housing as well as by Government. Our present

information, however, is to suggest that the yield-insurance plan be tried out first of all in a restricted field, namely, that it be limited to public utility building companies. It seems to us that Congress might be more willing to try out the plan in connection with a public utility building company than with ordinary private enterprise. Moreover, we have felt that the public utility company idea could not be successful without the yield insurance, so that this combination seems a natural one.

No doubt you are familiar with what we mean by a public utility building company. If not, I am enclosing a copy of our Illinois act which I believe you have seen before.

and he tells of the act to be passed next year.

Mr. O'CONNELL. What is a public utility building, do you know?

Mr. ECKSTEIN. Yes. The National Association of Real Estate Boards have conceived, and there in New York, Mr. Thomas Holden—has he testified here yet?

Mr. O'CONNELL. No.

Mr. ECKSTEIN. He is very much interested in it and has done something and been instrumental in the legislation that is being proposed in New York whereby large corporations will go into public housing of this nature on the concept that they are providing a public utility, inasmuch as they provide low-cost housing, rental housing, and in compensation therefor there will be the power of condemnation under certain restrictions ordered to enable them to acquire property reasonably, and there, of course, in turn will be a certain—

Mr. O'CONNELL (interposing). Would limited dividend corporations under the New York Housing Law be in that general category?

Mr. ECKSTEIN. I should say that they would; yes.

Mr. O'CONNELL. Tax-exempt property feature?

Mr. ECKSTEIN. I don't believe tax exemption is there. I don't think Mr. Holden believes in tax exemption.

Then I should like to read a brief excerpt from a recent report from Mr. Edward Stone, chief of the real property control section of the Resettlement Division of the Farm Security Administration. He says:

I feel that the plan in its essence represents a very valuable contribution and one that might well be tried.

Mr. Henry S. Churchill, prominent New York architect and housing expert, has written a letter from which I quote as follows.

The CHAIRMAN. May I suggest that the letters may be filed, and perhaps it will save the time of the committee.

Mr. ECKSTEIN. I will be glad to.

(The letters referred to were marked "Exhibit No. 920" and are on file with the committee.)

Mr. ECKSTEIN. Some of them are quite interesting and might I just say there are very favorable opinions then from Mr. Churchill who was at one time here in the administration in some capacity in housing.

Mr. Clarence S. Stein, also an architect and who has devoted practically all his life to building, points out that the investment housing has paid, as is evidenced by every large rental housing project that he knows of, such as the city and suburban homes, Metropolitan Insurance Co., Chatham Village, and so forth, a limited return in such projects.

Mr. George D. Brown is secretary of the division of housing of the State of New York, and also approves of it, as does Mr. Walter R.

McCormack, chairman of the committee of housing of the American Institute of Architects, individually, but not for the committee.

I also have a letter from Mr. Holden, who approves of it. Mr. Holden's only reservation is he would like to hear more discussion of the plan with life-insurance executives and others interested, which of course we agree with.

It has been urged that insurance companies and banks may not avail themselves of the yield insurance opportunity. The reasons advanced are all inspired by traditional thinking and by the fear that such investments may prejudice the value of mortgage holdings and ownerships held through enforced acquisition. Such irrational motivation can only be dispelled, if at all, by logical presentation of the realities. The fact is that some insurance companies, for example, the Metropolitan Life Insurance Co., have already entered this field. One large insurance company executive has privately informed us that he had reached the conclusion that such investments are advisable and gave in support thereof a number of reasons which led to the creation of the yield-insurance plan.

There is also a letter from Mr. Stillman F. Westbrook, vice president of the Aetna Life Insurance Co., approving thereof, with some objection which we will find here.

That trustee investors will avail themselves of the opportunity of investing under the yield-insurance plan, should it become effective, is evidenced by the ultimate acceptance by institutions, after objections and resistances at first, of such new measures as H. O. L. C. bonds, F. H. A. insured mortgages, and savings banks life insurance.

Of course, one vitally important test of the feasibility of the yield-insurance plan is to examine the financial experience that typical projects would exhibit under varying conditions. We have made such studies and I will leave this particular one with you for the record.

It is a set of test calculations prepared to show the ability of such projects to withstand violent cyclical fluctuations and to indicate the probable typical financial experience of apartment projects built under the plan. There are 5 cases under each of plans A and B, making 10 altogether. The periodic variations in the rental revenues set forth in the cases are based upon the yearly rent trend index of the National Industrial Conference Board from 1914 to 1937 with the amplitude of the variations increased 10 percent. The several cases commence by assuming the initiation of operations at 5 different points in the cycle (1914, 1918, 1922, 1926, 1930).

Under plan A, in three of the five cases, it was not necessary to pay any yield-insurance claims. In the two cases in which insurance claims were paid, the claims amounted to 42.5 percent and 43 percent, respectively, of the premiums collected. During the total of 61 years of operating experience covered by the five causes studied, the claims paid were only 16.3 percent of the total insurance premiums.

The total of the original investment in the cases was somewhat over \$4,730,000, of which over 58 percent was returned in required and excess returns of investment. The excess return of investment over the original amount required (2 percent of the annual depreciable investment) constituted 37.8 percent of the original investment in the five projects. In two cases, the entire original investment was

returned prior to the expiration of the insurance term, one in 13 years and one in 12 years.

During this period the yield on the investments amounted to over \$2,000,000, or an average of 4.9 percent on the annual unreturned investments. This income yield is in addition, of course, to the substantial return of principal just cited.

Under plan B in two cases yield-insurance claims were unnecessary. In the other three cases, the percentage of insurance premiums paid as claims for earning less than the insured minimum were as follows: 36 percent; 132 percent; and 87 percent. But only 43 percent of the total collected insurance premiums were paid as claims under plan B.

None of the projects under plan B returned the entire original investment during the periods covered by the cases. However, during the total of 80 years of operating experience covered by the five cases over 42 percent of the original investment of approximately \$5,100,000 was returned to the investors in required and excess returns. During this period cash reserves for repairs, improvements, and replacements were accumulated in five cases in an amount equal to about 5 percent of the original investment.

Earnings in excess of the allowed maximum return on the investments during the years totaled about 39 percent of the original investments. If the rents were not reduced to compensate for the excess earnings, they would be divided equally between additional premiums and additional return of investment.

The yield on the investments in the 5 cases amounted to over \$2,750,000, or an average of 4.4 percent on the annual unreturned investments of the 5 cases, over and above the returns of principal noted.

The majority of the figures herein cited, and detailed in the exhibit of charts herewith presented, are based upon costs prevailing during periods of relatively high construction costs. They do not reflect such reduction in costs as may be obtainable through lower costs of construction prevailing at the time of inception or through economies in cost that should be effected through well planned and large volume developments. Contrariwise, they indicate one of the outstanding benefits of the plan; viz, the ability to withstand the impact of cyclical fluctuations on projects entered into at a time of relatively high costs.

Mr. O'CONNELL. If there is no objection I would request that the detailed material be filed with the committee but not printed in the record.

The CHAIRMAN. If there is no objection, that will be done.

(The material referred to was marked "Exhibit No. 921" and is on file with the committee.)

Mr. ECKSTEIN. Another feature of the plan connected with this is the fact that, while the insurance of a minimum yield should tend to encourage investment in periods of low cost and lagging industrial activity, limited maximum return would tend to discourage the building of projects at a time when construction costs reached their highest levels near the peak of a cycle.

I will not attempt to present any additional remarks with respect to the conclusions to be derived from the test calculations but will leave this copy of the test calculations with you to be made a part of the record of your hearings. With your permission I shall now continue my discussion.

The yield insurance plan would activate housing and, so, directly stimulate recovery in the direction of the lagging field of private building construction, without, however, incurring any expenditure or indebtedness on the part of the Government and thus allay the fears of those who are opposed to any form of "pump priming" that involves Government-debt increase.

It must also be emphasized that the yield-insurance plan does not involve governmental subsidy. The total risk of the Government is far less in amount or probability than in F. H. A. insured mortgages. It may be indicated that F. H. A. mortgage insurance constitutes a greater liability than would F. H. A. yield insurance. In the latter case, Government revenues through yield-insurance premiums suffice to meet claims while losses under F. H. A. mortgage insurance require the issuance of debenture bonds—future capital obligations. It can also be pointed out that the United States acquires ownership of properties in the F. H. A. mortgage insurance system but does not acquire properties under the yield insurance plan.

Yield insurance is not offered as a panacea for the low-cost-housing problem. That problem can successfully and adequately be met only by attack on all fronts—cost of land acquisition; equalization of labor costs; reductions in cost of building materials both as to basic prices and economies in distribution methods, and the cost and method of financing. Yield insurance offers the approach to the financial angle with some effect on land costs.

It is, however, in our opinion, and which investigation as herein summarized confirms, an important contribution to the problem of inducing capital to invest in housing.

The more, however, yield insurance is studied, the more it impresses one with the fact that it would accomplish objectives much greater and more important than the attraction of capital to housing investment. It would create a transition from a speculative building business to a housing industry by eliminating all of the speculative features and establishing these objectives so long sought by so many.

By way of summary, I should like to offer some further observations pertaining to the belief that in no more adequate or likely way can capital be expected to interest itself in low-cost housing. And the releasing of capital into production and activity stimulating projects has largely concerned the T. N. E. C.

The principle of investing part of such funds in ownership rather than in evidences of indebtedness has been advanced by such authorities as the Twentieth Century Fund, Mr. Jerome Frank, and as well by some insurance companies themselves. The history of mortgage investment until the advent of F. H. A. shows the advantages to such funds of ownership and control as against the absence of control until foreclosure brings control too late to an involuntary owner. On the other hand, the advent of F. H. A. has produced a decrease in mortgage-income return and no greater security than theretofore, excepting through the important guaranty of principal by the United States Government.

The following quotations are taken from recent publications of the Twentieth Century Fund.

And I will omit those. They recite their opinion as to value of equity ownership.

It is worthy of notice that the committee of eight members responsible for the study and report from which the above were quoted included representatives from an insurance company, a savings bank, and investment banking interests.

Contrary to some considered opinion, we do not believe that we can entirely trust market pressure to produce the low rent and cost objectives we are seeking, nor would, without yield limitations, there be accomplished the elimination of speculation, the creation of conservative depreciation reserves and adequate provisions for maintenance. Limited-dividend projects under the present provisions of the National Housing Act will not obtain the end in mind. Successful projects under this act soon tend, through acceleration of amortization, to release themselves from the provisions of the act. Mortgages are then refinanced in the open market and the projects are freed for speculative operation. Unsuccessful operations become the obligations of Government. Under yield insurance there is neither the possibility of a Government agency being used, as in the instance of F. H. A. mortgage insurance, as a temporary crutch until unrestricted ownership and unlimited profits are attained, or of the necessity for the Government to bail out unsuccessful or inefficient owners by liquidating their mortgage indebtedness for them, and itself acquiring ownership of unproductive enterprises.

There is no inducement to free capital to build such projects for the lowest rental ranks so long as tenants can be found for homes at more than lowest rentals. Furthermore, the more the objective approaches the lowest range, the more difficult it is, under present conditions, to reach the comparative cost range that building for the lower-income groups involves, even after the elimination of certain facilities and refinements. Nor is there reason or incentive for such investors to try to reach that range.

The increasing difficulty of insurance companies and banks in finding mortgage investments has reached a point where there is keen competition for the better class of loans. Most essential is the availability of reasonably priced capital. This has already been accomplished in New York State, where the Metropolitan Life Insurance Co. has availed itself of the opportunity and principal. In a study of the Construction Industry, recently published by the Tri-Continental Corporation, Mr. E. Everett Ashley, 3d, says of the Metropolitan project:

With the low prevailing interest rate, the unpromising outlook for railroad bonds and the growing difficulty of investigating large funds at an adequate return, the opening of the rental-housing field to insurance companies should prove to be a welcome solution to a difficult problem.

MR. O'CONNELL. Right on that point, Mr. Eckstein, might it not be argued with the opportunities in the large-scale rental-housing field for investment capital which are apparently being demonstrated to some extent at least that we might hope for a substantial expansion in that field without the necessity for having the Federal Government participate to the extent indicated by your plan?

MR. ECKSTEIN. I don't believe so. Of course, according to our figures, as you no doubt noted, the participation of the Government is only that of the underwriter of yield and that of the writing should actually be a profitable transaction. I can't help but think that in the instance of insurance companies and savings banks, we have large

organizations who are very much opposed to change, who are very reluctant to accept different points of view. The fact that the Metropolitan so quickly availed itself of the opportunity in New York is encouraging in one way, but then I think one has to understand something of the particular situation in the Metropolitan Life Insurance Co., of its management, and maybe of its purposes.

I do think inducement is necessary. I do think that insurance companies would be afraid, if for no other reason that the possible criticism on the part of policyholders. They have their reserves to meet. Income is important to them. That gives them that reassurance both for themselves and for their policyholders, and the same of course applies to other trustee investors who might be interested.

Mr. O'CONNELL. Of course, they have that same thing to contend with every time they make investments, of whatever kind, and they are correct in believing that the large-scale rental housing field offers an almost unparalleled opportunity, let me say, for a good investment, with a good return, which would probably be better than other parts of their portfolio. I just wondered if you had considered whether or not there might naturally develop an expansion in that field without the incentive——

Mr. ECKSTEIN (interposing). On the part of these same investors, not private capital.

Mr. O'CONNELL. I mean on the part of such investors as the Metropolitan Life Insurance Co. and other large institutional investors. The Metropolitan is already in the field without the inducement of yield insurance or any guaranteed return or yield or return of principal, and I just wondered what your view was as to the possibility that there might not be a substantial expansion in large scale rental housing without yield insurance.

Mr. ECKSTEIN. I think not because of the reasons I have stated; I think the whole psychology, the whole approach of the insurance companies would be too slow, too conservative on the one hand, and on the other hand I don't know, of course New York State has shown otherwise—I don't know that State legislation could easily be obtained without the yield-insurance feature. I think many States might be more conservative, not that we are particularly radical in New York, but we seem to have been a little more imaginative in this particular case and have passed such legislation. But, so far as I know, it is the only State which permits it.

Mr. O'CONNELL. You think the opportunity is there for the investors of private funds, but that unless the Government through some device such as yield insurance provides an additional incentive the money will not flow into that type of investment?

Mr. ECKSTEIN. I think the money is there, I think the opportunity to invest the money prudently, wisely, is there, but I think someone has to come along and sugar-coat it a little.

Mr. O'CONNELL. Of course any further extension of Government activity in this field, as in other fields, is a less desirable alternative.

Mr. ECKSTEIN. That is the opinion of a great many people; yes, sir.

Mr. O'CONNELL. I don't believe we would quarrel, would we, that the advantages of having private capital do this sort of thing without the Federal Government——

Mr. ECKSTEIN (interposing). It would be swell if they would do it.

Mr. O'CONNELL. But you don't think they would?

Mr. ECKSTEIN. I don't think they would; no, sir.

Mr. O'CONNELL. Have you any reason to believe that this particular type of incentive, taking plan A, a 2½ percent guaranteed minimum yield, with a maximum obligation of 10 percent, would supply the incentive you think is necessary?

Mr. ECKSTEIN. You think the yield is not enough?

Mr. O'CONNELL. I don't think one way or the other.

Mr. ECKSTEIN. You are asking whether I think the guaranty is sufficiently substantial.

Mr. O'CONNELL. That is right.

Mr. ECKSTEIN. I do; yes, because after all the 2½ percent is a minimum which would be called upon only in times of very serious depression. There is the opportunity of practically doubling that, according to our figures. I don't doubt it could be doubled. I think the important thing, the important feature of yield insurance is that it affords that stability of some return in the years of greatest depression, and that it averages out and it relieves, it flattens out the low points in the cycle. And I think that is the important thing.

Mr. O'CONNELL. Of course it makes no provision for capital losses. I mean by that, there is no attempt to insure the return of the principal.

Mr. ECKSTEIN. No. I don't think one need worry about that. I was going to say about that that the question of capital loss—well, I am coming to that later in my little conclusion. here. I do want to say this, coming back to the question of the 2½ percent minimum, that a guaranty of 2½-percent return to a trustee investor, a minimum return, seems to me very attractive today. The practice of trustee investors—and I use the term collectively, including insurance companies and banks—has been more and more to go into Government bonds and the return is less than 2½ percent on today's market. Where you have a return of a minimum of 2½ percent, to people who are trying very hard to increase their yield (there is a tremendous problem there to trustee investors) it seems to me it would be very attractive.

Mr. O'CONNELL. I wanted to get your view.

Mr. ECKSTEIN. Of course also you could increase that return. When it is analyzed, you might determine that 2½ percent under plan A should be increased and the insurance premium proportionately increased. It would be sound business to do it. I don't think it would be necessary. It is a consideration.

Mr. O'CONNELL. I don't know that we have a great deal of experience on how investors would react to that type of incentive or yield.

(Dr. Lublin assumed the chair.)

Mr. ECKSTEIN. We have had no experience, of course.

Mr. O'CONNELL. I have a recollection of the first issue of Home Owners' Loan Corporation bonds which were insured as to interest only, and my impression is that those sold around 80, and that the next issue, which involved a guaranty of both principal and interest—

Mr. ECKSTEIN (interposing). That is quite right, Mr. O'Connell, but do you remember when that issue came out? It was a period when things were very bad. In the first place those bonds were issued against distress properties acquired by the Government. There was nothing behind them and the banks were absolutely out to kill that

issue if they could. I know it because I went to banks acting as trustee and said, "Why don't we take these bonds?" and they had every argument in the world why they weren't any good. They actually didn't push them. Contrariwise, they tried to stop them. It was the first time the Government went out, as I remember, and guaranteed an obligation other than its own direct obligation. It was new and you met all the resistance marketwise, and the market was bad at the time.

MR. O'CONNELL. I merely raised the issue because I recall the issue of bonds, which I believe was a 4-percent issue guaranteed as to interest, and they sold around 80, and the next were guaranteed as to principal and interest and sold at par and above, and I was merely trying to probe what your view was as to the effectiveness of this particular incentive, your belief as to whether or not it would be effective—and I take it you believe it would be.

MR. ECKSTEIN. I firmly believe it would be.

I am convinced that if we disregard the shifts in values due to speculation and changes of ownership in the lowest class, older and most depreciated dwellings, whether in urban or semiurban centers, in fact those that are today the very localities slated for ultimate slum clearance, we should find that low-rental housing, freed from speculative interferences, has not only been a good investment but profitable. If one were to charge against the original cost of such properties the net return after depreciation, maintenance, and so forth, through the range of years, including all depression periods, the total net income received would be seen to have paid the owner a handsome average annual return, cleared off all the original cost, and probably have left a good principal profit as well.

It is certain that there is no immediate prospect for large-scale, low-cost, nonsubsidized housing, excepting on a strictly investment basis, and that individual capital cannot be lured into this field. The focal points of attack on the problem must be: Reduce the cost of producing houses by facilitating the acquisition of land at fair values, by reducing construction costs, by continuous research toward this end, and by the elimination of wasteful labor practices.

To reduce the cost of housing to the occupant by establishment of sound investment possibilities on an ownership basis, and by reducing the hazards which arise from division of interests in senior and junior positions. For these purposes reasonable guaranties of income return are offered in compensation for the above-mentioned lower-cost advantages and for the elimination of the attractiveness of speculative opportunities.

Or else—and here I see but one possible eventuality—housing, by and large, will become a Government function through a continuous increase in subsidized public housing, coupled with an ultimate taking over by the Government of overvalued, nonpaying mortgages through H.-O. L. C. and other agencies, and through the demand by a large percentage of the Nation that something be done for it. We are talking of and doing something about low cost, subsidized housing for one-third of the Nation, the underprivileged. The upper stratum can take care of itself, and rather handsomely does. But what of the large predominant middle group, estimated at 65 to 70 percent, who can afford to pay for adequate housing of the type that the very poor are today getting at half its cost from Government landlords? How

long will this group remain content with antiquated, inadequate homes for which it pays twice the price at which up-to-date housing is becoming available to others?

Surely, sooner or later this group will become articulate and demand that if private industry will not provide this as a commercial venture, Government shall.

Mr. O'CONNELL. Mr. Eckstein, I have only one question. You have made no particular reference to the income group that this particular type of development would serve, except in your closing statement. Have you any definite idea as to what income group could be served by the type of investment we are discussing?

Mr. ECKSTEIN. Yes. The projects used in that calculation and the figures, I might say, are those projects that were taken from F. H. A. record, insured-mortgage projects under 207, rental-housing projects, are based upon calculations of rentals of about \$15 per room under plan A. There would, of course be a variation because we figured different periods of the cycle. Under plan B, a rental range from \$7 to \$14 per room. However, of course, those figures depend upon the exact level of rents and construction costs, at the particular time in which one entered into the cycle. I believe also that all of those figures are based upon construction costs that are much higher than today's market and, consequently, we get a much lower rental basis.

Mr. O'CONNELL. The emphasis in your plan is to provide incentive to get large-scale rental projects constructed without any particular regard to the rent level; isn't that true?

Mr. ECKSTEIN. I think without any—shall I say, immediate or compulsory regard, but I don't think, for example, you would insure a project that was aimed for too high a rental scale because you would feel that was not a good, insurable project. The F. H. A. has that authority. It approves all projects.

Mr. O'CONNELL. Throughout his hearing we have been discussing primarily an income group which ranges between \$1,000 and \$2,000 a year, when we were discussing the Metropolitan Life Insurance experience, and their project in the Bronx, which I take it is the type of project which would be envisaged by your plan—

Mr. ECKSTEIN (interposing). And lower.

Mr. O'CONNELL. I would hope lower.

Mr. ECKSTEIN. I would hope lower, too.

Mr. O'CONNELL. Because their rents, as I recall, were such that the quarters would be available only to those persons having an income between \$1,500 and about \$4,000 a year, a very small part of the accommodations being available for people below \$2,000.

Mr. ECKSTEIN. In the Metropolitan project, the cheapest apartment is \$30.

Mr. O'CONNELL. Thirty-two, I think.

Mr. ECKSTEIN. I have just had hearsay. That is a one-room apartment, practically; that is not a family, it is a person, so it doesn't quite touch that group.

Mr. O'CONNELL. No; that type of project would not be very helpful.

Mr. ECKSTEIN. When I am thinking of \$1,500 incomes, I think of families and not individuals. Yes; we have to get that; but on the other hand, Mr. O'Connell, I have studied for some years and worked on this problem of what could be done by private industry for the

\$1,500-income family, and I find nothing that is being done by private industry.

Mr. O'CONNELL. That is right.

Mr. ECKSTEIN. And I don't see, particularly in rental-housing projects, where not necessarily but largely you immediately think of large urban centers, that we have reached any basis of construction for that group in this type of thing as yet. I think we are approaching it and I think this would be an entering wedge.

Mr. O'CONNELL. We have been generally before the committee recently exploring the possibility of entering that field.

Mr. ECKSTEIN. So have I. You haven't found it, have you?

Mr. O'CONNELL. I was wondering to what extent you thought you had found it.

Mr. ECKSTEIN. Not in large cities as yet; no, sir.

Mr. O'CONNELL. I have no further question.

Acting Chairman LUBIN. If there are no further questions, we will excuse the witness.

(The witness, Mr. Eckstein, was excused.)

Mr. O'CONNELL. I would like to call Mr. Gerald P. Lambert.

Acting Chairman LUBIN. Do you solemnly swear the testimony you will give will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. LAMBERT. I do. Mr. O'Connell, can I correct that at once? I am very sensitive on the name "Gerald." My name is "Gerard."

Mr. O'CONNELL. I offer you my most humble apologies.

Mr. LAMBERT. It is the only touchy spot I have in my make-up.

TESTIMONY OF GERARD B. LAMBERT, PRINCETON, N. J.

THE "LAMBERT PLAN" FOR LOW-RENTAL HOUSING

Mr. O'CONNELL. Mr. Lambert, will you state your name and address for the record?

Mr. LAMBERT. Gerard B. Lambert, Princeton, N. J.

Mr. O'CONNELL. If the committee please, I think that Mr. Lambert is sufficiently well known in his interest in housing problems generally, so well understood, that it will not be necessary to further qualify Mr. Lambert to discuss the things he intends discussing before this committee, and if there is no objection, I would suggest that Mr. Lambert proceed to tell the committee what he has in mind as something that will help toward a solution of our housing problem, and I think it would be helpful if we permit Mr. Lambert to proceed uninterrupted until he has completed his statement, at which time we can ask any questions that occur to us.

Mr. LAMBERT. Mr. Chairman, I have 11½ pages of double spacing. It is not very heavy. Some of it is diagrams, so I think it will save time if I just tell the story that way.

It is an amazing fact that, with all the effort being made to employ idle money and idle men, no successful steps are being taken to tap an industrial market which would be almost unlimited for the next decade. The market referred to is the demand for the erection of new dwelling units for the group whose incomes force them to pay, in rent or equivalent purchase payments, from \$5 to \$10 per room per month.

According to the 1930 census, there were 5 million urban rental families in this income group. For the purpose of simplification, therefore, I will confine this discussion to the problems of rental projects.

The fact that the market exists is well known and has been pointed out in these hearings, but nothing constructive is being done to enter it for the purpose of increasing employment and stimulating industry.

The plan which I will suggest to you has as its purpose the wide introduction of private enterprise into this field. It has as a further purpose the creation of large investment corporations, whose mere size should aid in lowering building costs and in minimizing risks.

The statement is made broadly that private enterprise cannot and will not erect new dwelling units to rent for less than \$10 per room per month. I will show you that under this plan, buildings have been erected and operated by private capital, and are bringing an excellent return with full amortization of the investment, and rent for \$6.25 per room per month.

If investment capital not now being used for dwelling construction can be induced to build for an income group not now being provided for, the result on our economy would be equivalent to the discovery of a new industry. Inasmuch as private enterprise has never done this under conventional methods of finance, new methods of finance must be employed to accomplish the result.

The proposal itself is simple, and there are several methods which could be employed to put it in practice. Unfortunately, in application, no one of these methods is simple. To bring about the desired benefits, courageous action and Federal legislation are necessary. The economic necessity, however, justifies such action.

CAUSES OF HIGH RENTS

Mr. LAMBERT. There are two basic cost factors that have made it impossible to achieve rents low enough to supply the market referred to. To reach our objective, these factors must be eliminated or minimized.

They are:

1. The existence of a speculative equity in practically all residential construction by private enterprise.
2. The necessity of adding to the rents full local taxes on the improved property.

Speaking generally, all dwelling construction is planned and undertaken by speculative capital. A recent study has shown that, while most of our automobiles were built by three companies last year, the dominant factor in house building was a group of over 113,000 small contractors with an average annual volume of business somewhat under \$9,000. Surely this is shoestring speculative capital, and the builder must, of necessity, try to obtain the highest possible return on his equity.

1. The surest way to obtain complete elimination of the speculative equity in building is to arrange to have ownership of the property pass from the builder as soon as the original investment, and a modest definite return thereon, shall have been received by the builder. In other words, all speculative gain of the future must be made impossible after the recovery of the original sum invested. This can be accomplished by limiting the annual return to a maximum fixed

interest rate and taking away title to the property when the original investment has amortized. For illustration, no one holding a mortgage on a property expects to get back more than the exact sum invested and an interest charge thereon. The same principle expanded to full ownership will bring about complete elimination of a speculative equity.

Let us take a speculative investment for comparison. A profit of 27 percent on the equity is presumed. There is ample evidence that this figure is often exceeded.

In the outline submitted to you is a diagram. This shows the result of investing \$100 in housing, employing speculative capital.

It is presumed that \$80 of this is obtained on a mortgage. This mortgage requires an annual payment of 7 percent—made up of 4½ percent interest, one-half of 1 percent insurance, and 2 percent amortization. Seven percent of \$80 is \$5.60—the debt service. The low interest rate would seem to promise low rentals.

But now look at the speculative equity of \$20. I have presumed an annual return on this of 27 percent, or \$5.40. If this appears high, ask yourself, as a builder, if you would set up original rentals with a lower expectation.

Adding the debt service of \$5.60 to the equity return of \$5.40, we get a charge, before maintenance, of \$11. Thus, if speculative capital refuses to build without at least, let us say, 27 percent return, the financial burden is \$11, or 11 percent on the total investment in the project. It becomes clear that the speculative equity is the key to this whole question.

Now under the proposed plan—Full ownership by investment capital \$100:

A level payment of 6 percent per annum will retire \$100 in 28 years and yield 4 percent on all outstanding balances. This figure is used for convenience. A shorter amortization period will raise this charge. A longer amortization period will lower it.

$$\$100 \times 6\% = \$6 \text{ or } 6\%$$

Putting it another way, it is extremely unlikely that speculative capital will build new dwellings with the understanding that the return on the equity for amortization and interest shall be limited to 6 percent.

2. Let us presume, therefore, that we can solve the first of the problems by taking away title after amortization. The question arises: To whom shall title pass after amortization? The answer provides us with a solution of our second problem—how to minimize local taxes in making up the cost of rent. The remaining, and a very substantial, equity may be traded to the municipality in exchange for a lessening of local taxes on that property. In other words, if investment capital will limit its annual return to a fixed amount and give up its future speculative equity to the municipality after amortization, that value given to the municipality may be exchanged for a lessened local tax. With these two things brought about, we have achieved our objective—low rents.

But, unfortunately, capital will not agree to limit its annual income to a modest figure and also give up all future speculative possibilities. Some incentive must be offered as an inducement to do so.

INCENTIVES

Mr. LAMBERT. Two incentives are suggested. One creates no liability for the Federal Government but taps a limited source of investment funds. The other creates a liability for the Government, but makes available an almost unlimited source of investment funds.

It is proposed that a new type of corporation be authorized for the sole purpose of erecting and managing housing for this income group. No profits beyond the original investment and, let us say, 4 percent thereon would be permitted. All excess profits would be paid to the Government as a tax. There would be one class of common stock, limited to annual dividends, of let us say, 4 percent.

First incentive.—There would be a provision in the revenue act that an individual may deduct from his income surtax the income from these corporations, provided that income does not exceed 5 percent of his total income from all sources, including tax-exempt securities.

That is to say, a deduction against surtax up to 5 percent of all income could be made just as today a deduction up to 15 per cent may be made for charity contributions. The result would be a tax exemption on the income from these corporations, provided it did not exceed 5 percent of the individual's income from all sources. This incentive should insure a flow of investment from those in the higher-income brackets. No Government liability is involved. Unfortunately, I am told this incentive is politically inexpedient.

Second incentive.—It is suggested, for an alternative incentive, that the principal (or a portion thereof) of the actual investment in housing by these corporations, and an interest return of, let us say, 2 percent, be insured by the Federal Government. All excess earnings beyond the retirement of the original investment and a maximum of 4 percent shall be paid as a tax to the Federal Government. This insurance should make available an almost unlimited supply of capital.

It can be shown clearly, therefore, that if we eliminate the speculative equity—exchange that equity for lessened taxes—and further add the proper incentive to capital, we can achieve low rents by the use of private enterprise. The point of prime importance is that the projects would be planned, erected, and managed by private capital. Government assistance would make the operations possible, but at no cost to the Government.

MUNICIPAL TAXES

Mr. LAMBERT. It may be urged that a municipality will not want to wait for the whole period of amortization to obtain the property in exchange for its local taxes. In this event, the municipality's increasing and final equity in the project may be discounted and financed to provide the equivalent of local taxes annually; that is to say, the municipality is gradually acquiring an asset and that asset may be used to secure advances from year to year which will be used in lieu of taxes.

METHODS OF OPERATING PLAN

Mr. LAMBERT. With this outline of the fundamental idea in mind, I will show the several ways whereby the plan may be put in action.

1. *Corporations (requiring new legislation).*—A new type of corporation would be authorized, limited to the original investment and 4

percent return. The corporation would build where it chose and would negotiate with municipalities for a lessened local tax in exchange for eventual ownership of the property.

(a) The incentive would be a tax deduction up to 5 percent against income surtax; or

(b) The incentive would be insurance by a Federal agency (such as F. H. A.) of principal and a maximum of 2 percent of income thereon.

(c) If desired, a Federal agency such as R. F. C. would lend to the corporation, for the period of amortization, an amount annually equal to, let us say, half the local taxes. The remaining half would come from rents, and full taxes would be paid annually to the municipality by the corporation. The municipality would hold the property, after amortization, to secure the repayment of these annual loans, at compound interest, to the lending agency.

I want to say something here that I haven't written, which happened in the last few days. This new bill that is being discussed, as I understand it, would permit the R. F. C. to loan on self-liquidating projects, up to 40 percent.

2. *The United States Housing Authority (under existing laws).*—The U. S. H. A. would lend to local housing authorities the equivalent of the usual equity money, let us say 20 percent. The remainder would be obtained from private lending institutions as a mortgage. Income from rents would retire, with interest, these two loans, which together constitute the original cost of the project. The U. S. H. A. would make an annual contribution to the local housing authority, which would be paid by it to the municipality in lieu of taxes. The property would be held, after amortization, to repay the annual loans to U. S. H. A., but without interest. The interest on the annual loans would be the subsidy provided by the Government. If subsidies are not considered advisable, the annual contributions may be less and the interest would be paid with no loss to the Government. The only result would be slightly higher rents.

3. *Any local housing authority (under existing laws).*—Any local housing authority would sell its bonds to private capital for a wholly owned rental project. The incentive to capital exists because these bonds are completely exempt from all taxes. The housing authority would erect the buildings, operate them, and retire the bonds from rent. When amortization is completed, the housing authority would transfer ownership of the project to the municipality to compensate for local taxes not received during amortization.

ACTUAL DEMONSTRATIONS TO DATE

Mr. LAMBERT. Let us see what we achieve when we apply the principle of this plan to an actual housing project.

With your permission, Mr. Chairman, I will stick a picture up here.

A report covering this idea was made to Stewart McDonald, Federal Housing Administrator, in August of 1938. I requested and received permission to build a demonstration unit in Princeton, N. J., with my own funds. It was decided to use the device of a local housing authority, under existing State laws, to bring about the equivalent factors of the proposed legislation.

On August 16, 1938, work was started on 10 family units, each with 4 rooms and bath. Construction is of brick, with slate roofs, oak floors, and copper plumbing. On December 1, 1938, the units were finished and rented to 10 families selected from a long waiting list.

The entire cost of the project, including purchase of land, buildings, utilities, and landscaping, was \$30,000, or \$3,000 per family unit. Union labor and standard materials were used throughout.

When the project was finished and rented, it was turned over to the Housing Authority of the Borough of Princeton at cost. In exchange, I received \$30,000 of the bonds of the Housing Authority. These bonds pay 4 percent annually on the outstanding balances and are amortized in 28 years. A level annual payment of \$60 per bond is sufficient to amortize the investment and pay 4 percent interest thereon. Being bonds of a housing authority, and for a public purpose, they are exempt from all State or Federal taxes. In addition to the debt service, the rents include a charge for maintenance, collection of rents, and so forth. This maintenance charge constitutes 40 percent of the rent and is adequate to provide reasonable reserves for contingencies.

NEW BRUNSWICK PROJECT

MR. LAMBERT. Following the success of the Princeton project, the city of New Brunswick, N. J., has taken up the idea. A housing authority was created and has completed plans for erecting a series of two-story buildings. These buildings will be of brick, with slate roofs, oak floors, and copper plumbing. Each unit will contain a living room, kitchen, dinette, two bedrooms, and bath. The bedrooms are on the second floor. The rent will be \$25 per month for each family unit.

Bonds of the New Brunswick Housing Authority have been underwritten by Mr. Marshall Field, Mrs. Marian Stern, daughter of the late Julius Rosenwald, and myself. In other words, the investment, paying 4 percent free from taxes, is attractive to capital in the highest income groups.

CONCLUSION

MR. LAMBERT. The use of local housing authorities to carry out this plan can be made to stimulate employment. The operation through municipal bodies is necessarily, however, subject to delays and restrictions. Such operations have demonstrated, nevertheless, that low rents actually can be achieved by private capital.

To bring about widespread activity in this field it will be necessary to have Federal legislation which will permit investment corporations to operate at will, and to be so financed that they may pay full local taxes without depending upon complicated negotiations with municipal authorities.

MR. O'CONNELL. Mr. Lambert, referring to the two projects that you just discussed, as I understand it, both of those projects are being operated by local housing authorities and will be financed on a basis of 4-percent bonds, tax-exempt bonds, issued to finance the construction, and with tax exemption of the real estate given to the local housing authority by the municipality, or rather, a tax-exempt privilege being owned by the local housing authority. Is that correct?

Mr. LAMBERT. The tax exemption in the case of real estate owned by a local housing authority is not disputed. It is just automatically exempt.

Mr. O'CONNELL. You think it more desirable and more logical to achieve the same result by having private corporations to do the construction?

Mr. LAMBERT. Yes, sir. May I show a chart? This was prepared a year ago, and the figures may be a little off in this respect, of the amount of work done. The Federal program for housing is incomplete. The United States Housing Authority takes care of people who pay rent from \$5 per room per month down, roughly speaking—it may be five-forty, or something like that. The Federal Housing Administration take care of people who rent from \$10 per room per month and up, but nobody takes care of the biggest single group of people, who pay between five and ten; and to answer your question, this plan is primarily to increase employment. It has a secondary social nature, but it is to increase employment, and we have a market of 5,000,000 families, urban families, that pay between 5 and 10 dollars per room per month. As a market, if we could build a \$3,000 unit for each family, that is \$15,000,000,000. It is in addition to the construction work that would go on under the U. S. H. A. and F. H. A., and nobody is doing anything about it. That is the point in answering your question.

To answer it more thoroughly, the Housing Authority approach in my case was simply to demonstrate clearly the elimination of speculative equity and the exchange of that equity for lessened taxes. It is clumsy. We should have private corporations which are authorized to build housing for that income group, and be limited to the return of the original investment and not more than 4 percent. We should have some incentive to apply to these corporations. I would suggest the tax credit—up to 5 percent—but that is unpopular. The insurance feature is more under discussion today.

But whatever incentive it is, those corporations would build wherever they chose. They wouldn't have the delay of going to the municipalities at all. They would take it up with the boards and say, "How about on this lot, getting a little better arrangement temporarily?" Eventually they would pay full taxes.

Mr. O'CONNELL. Generally speaking, though, you believe that the key to getting reduced rents is the elimination of the so-called speculative equity.

Mr. LAMBERT. That is 80 percent of the problem, in my mind.

Mr. O'CONNELL. So if we eliminate the speculative equity by having some corporate device created which would be created for the purpose of constructing this type of dwelling with a limit on the return, that corporation could make, let us say, 4 percent on the invested capital, we have eliminated the factor of speculative equity, which, according to your calculations, would have reduced the financing cost from \$11 per hundred dollars to about six per hundred.

Mr. LAMBERT. Do I understand that you would consider it adequate to limit the 4 percent for a definite number of years?

Mr. O'CONNELL. I probably wasn't explicit.

Mr. LAMBERT. My idea was the way to assure no future speculative equities is to take it away from him the minute he has his money back in full:

Mr. O'CONNELL. You would limit it to 4 percent on his investment until he had returned to him his investment, at which time the entire property would be transferred to a public body.

Mr. LAMBERT. Either that, or sold for a purpose. You see, I am outlining an idea. The first thing, we must kill off the speculative equity to solve this problem. Now we take it away. You can either sell it in the public market and give the money to the municipality in lieu of taxes, or use any device you want.

Mr. O'CONNELL. Having eliminated the speculative equity, we then have to have some inducement to induce the investment capital to be satisfied with a 4-percent return on its investment.

Mr. LAMBERT. Absolutely.

Mr. O'CONNELL. And in your belief some incentive, be it the insurance or tax credit, or something else, is necessary in order to persuade the investing public to enter that field.

Mr. LAMBERT. That is what I mean by saying that inasmuch as private enterprise has never built new dwellings for rent or the equivalent purchase price of \$5 to \$10 per room per month, we must do something different, and the thing we must do different is to set up a structure of the machine which will accomplish it, and the thing that will make the machine run is the incentive.

Mr. O'CONNELL. The two incentives you suggested, the tax credit, as I would understand it, applies as an incentive to individuals, individual savers, or individuals who are in the higher-income brackets and the insurance feature would be applicable to institutional investors.

Mr. LAMBERT. That is it.

Mr. O'CONNELL. Of course, the second would be applicable to either, I think.

Mr. LAMBERT. Yes.

Mr. O'CONNELL. And the first would be applicable to the individuals.

Mr. LAMBERT. In one case there is absolutely no liability on the part of the Federal Government; it is all private capital; and the revenue act would contain the provision that in your income tax, income from this special kind of corporation may be deducted from your surtax up to the point of 5 percent of your income. You might have 95, but you get a credit of 5 percent, so that would be—the income from the corporation would be—deducted from the individual surtax.

Mr. O'CONNELL. But if the individual investor derived not more than 5 percent of his income from stock of one of these corporations, the effect would be that his income from that source was tax-exempt.

Mr. LAMBERT. Exactly.

Mr. O'CONNELL. That particular incentive would not be very valuable in encouraging institutional investors, would it?

Mr. LAMBERT. No.

Mr. O'CONNELL. So if we are thinking of one incentive which would attract both classes of investors, the insurance is the only thing that would do that.

Mr. LAMBERT. Yes. It may be of interest to know the figures on the first incentive. I know that if you allowed up to 10 percent as a tax credit, when I first figured it, and taking incomes above \$25,000 a year, that would be eight and a quarter billions available. That is

what I meant by saying that the Government has no liability, but we have a limited market.

The other case, the Government has a liability, but we have an almost unlimited market.

I suggest them both, because it is a question of whether you want the Government to have the liability or not.

Acting Chairman LUBIN. Why do you want to insure both the principle and the return? Shouldn't the insurance of return be sufficient?

Mr. LAMBERT. Dr. Lubin, frankly, I wouldn't care one way or the other. I simply say some insurance by Federal agency that is so attractive and so secure that the funds would come in. I simply took it for granted, as I understand the F. H. A. in the net result, the principal and the net return is insured. Is that so?

Mr. O'CONNELL. That is substantially correct.

Mr. LAMBERT. That is why I paralleled that, and that has afforded a big market for capital which has come into housing and has done an excellent job in stimulating interest and employment.

Acting Chairman LUBIN. Here is a corporation—three of us get together and set up a corporation under the proposed law. We have a principal and return guaranteed, insured, or we have one or the other; and at the end of 25 or 26 years, the property is no longer ours; it reverts to the municipality in lieu of taxes that haven't been paid in that period. What stimulus is there to us as owners of that property to maintain it?

Mr. LAMBERT. During the interval, you mean?

Acting Chairman LUBIN. Of course, because at the end of 20 years it isn't going to be ours anyway. Why should we go to work and spend money on it?

Mr. LAMBERT. I think first that it would be possible to get reasonable rents and have enough maintenance at the figure I have given you; and secondly, with the sort of corporation I visualize, rather large blocks of capital, with very intelligent operating men, they would feel it would be more secure right up to the last day to have that property in good condition, because this plan reverses all the normal reactions of a real estate man in many respects. You can't milk it. That is the answer.

You see, you have got \$100 invested in that property, and by law the very most you can ever get out is to collect on an amortization. I haven't plotted this with the bill that was drawn, but the bill is so carefully drawn that each one of the projects, the day it is built, would have an amortization schedule set up which would be O. K.'d by the Administrator who is insuring the thing. That runs along from year to year. There is a reasonable reserve. If you want to know the figures, one-half of the amortization requirement for 1 year, and a maximum of 2 years' requirement. Now you can't gain anything; because you can't milk it. The whole policy of the thing is reversed. We have built as efficiently as possible for a long pull and maintained them, because we would like to get our 4 percent and the principal back.

Acting Chairman LUBIN. In other words, the only alternative you would have if you didn't maintain the property was to give it to the tenant at lower rent.

Mr. LAMBERT. That is it, and it wouldn't make very good common sense with your money invested in it; I mean, if you can get a rent that brings in proper maintenance charges. I find that in Princeton the minute the tenants find out that I, as a landlord, can only get \$15 a month they protect the property. We collect \$10 from them and then we keep the property up for them; if they abuse it, we raise it to \$12, but if they don't abuse it and cooperate as they are doing, we are going to drop the rents. I can't get a dollar more than the \$15, and that has a wonderful effect on the morale.

Mr. O'CONNELL. Just to repeat, to be sure I understand this, by the elimination of the element of speculative equity, you do get, without regard to the tax-exemption feature of the real property, a substantially lower rent figure. Then, to achieve a still lower-income rent schedule, you add onto that a tax-exempt feature from the municipality to the private corporation. Without the tax exemption of the real estate, you indicated \$30 a month rent.

Mr. LAMBERT. Yes. There would be no tax exemption in the case of the corporations at all. They couldn't get a tax exemption with the municipality.

Mr. O'CONNELL. They could not?

Mr. LAMBERT. No. The simplest illustration is the Princeton buildings. They cost \$3,000 a unit. The taxes are \$600 on the improved property. Now, if that corporation had built that as one of their projects, they would say there is a shortage in Princeton; it is a good idea to build. In that case, if what I am suggesting were in effect, they would raise those rents by \$2.50, which, if you will accept the statement without figuring it out—the taxes are 2 percent, which is \$5 a month. If they were able to borrow from the Federal agency or from the local bank at 1 percent and took 1 percent in rent, they combine the two and as a corporation pay full taxes to the municipality at once, they don't argue with them at all. The corporation could not demand tax exemption from the municipality.

Mr. O'CONNELL. I was trying to get a simple picture of what the situation would be if it were one of these corporations if we had merely eliminated the speculative equity and there was no arrangement with the Federal Government or any other agency to get funds to pay taxes to it. Assume the corporation pays full taxes to the local community and is able to get all of its money with a maximum of 4 percent return, the rents would be somewhat higher than the six dollars and a quarter a room that you indicated, but still below the ten, would they not?

Mr. LAMBERT. Oh, yes; they would be \$30 divided by 4, whatever that is, which is way under our goal that we shot at in the first attempt, paying full tax. In other words, the whole secret of what we are shooting at is based upon experience with speculative capital, and the minds of speculative practice.

This is what happens in practice: The builder who built these Princeton buildings, who is very much interested in them, immediately thought, "That is a good idea; I will build some of my own." What do you think he rents for? \$50. Instinctively he began, "Oh, I have got to have a little extra room and have a little something here," and up you go, because he can get a faster return on his equity. Now, the minute you know you never can see anything but 4 percent, your inclination is to use all your brains to get down to good construction for the lowest possible income group to insure the permanency of the

rent. You probably know all figures of the Sanitary Dwelling Corporation here in Washington. Mr. McDonald and I went into those buildings at 40 years old and they have never failed, as I recall the figures, to pay 5- and 6-percent dividends to that corporation throughout all depressions. They were built for the low-income group, and they didn't try to get speculation out of it.

Mr. O'CONNELL. So that in your view we would go a long way to reducing rents for adequate dwelling accommodation if we were merely to eliminate the speculative equities?

Mr. LAMBERT. I would like to stress the points on page 8 of my prepared statement.¹ I give the elimination of the equity and an incentive: "If desired, a Federal agency (such as R. F. C.) could really finish the job up and even get a little lower rent by financing half of the taxes, which would increase the security." It isn't essential to the plan.

Mr. O'CONNELL. I might suggest that one advantage to having a private corporation do this type of thing would be that it would be possible for the community to obtain practical service from the project as distinguished from what it would obtain from a local housing—

Mr. LAMBERT (interposing). Exactly. Now one of the things I didn't mention—I didn't want to put in—we will never get these things built and get employment going unless the idea is acceptable to municipalities. That is the trouble. Take the figures in Princeton. There is a good illustration. The lot where these were built was bringing \$40 a year with no way of increasing it. Nobody seemed to want to build on it. It was a dilapidated district. If half of their taxes were supplied now by a loan, that would be \$300, and then they had to return the \$300 at compound interest at the end of that time, they still would probably have an equity in the building of the municipality to obtain the remaining three and get full taxes, and if they got nothing else, they jumped their revenue from \$40 to \$300, or full taxes from \$40 to \$600. It is a very popular idea to have the municipal taxes increased by this building activity.

Mr. O'CONNELL. As it stands, when that work is done under a local housing authority, they got \$40 in taxes before, and they get nothing today?

Mr. LAMBERT. They get nothing. They get nothing! Now, I have got an application in the United States Housing Authority that covers that, in which the Princeton Housing Authority has officially applied to refinance. They will get a 20-percent loan from the United States Housing Authority, which is the equity. This makes sure it isn't speculative equity. Then they would borrow from lending institutions—that makes 100 percent; then as an annual contribution they receive 1 percent or 1.6 percent, and pay it directly to the municipality in lieu of taxes, the municipality pays it back, all of it, to the United States Housing Authority; in other words, that is the machinery that would finance for the municipality their growing equity annually without waiting till the final day.

Mr. O'CONNELL. If I understand you correctly, then, that device would result in the same level of grants as are charged at the present time?

Mr. LAMBERT. Exactly.

¹ See *supra*, p. 5377.

Mr. O'CONNELL. Would result in the municipality getting a part of—

Mr. LAMBERT (interposing). Ninety percent.

Mr. O'CONNELL. Ninety percent of the real property—

Mr. LAMBERT (interposing). On the improved property.

Mr. O'CONNELL. On the improved property, \$480 as against nothing at the present time and \$40 before?

Mr. LAMBERT. That is it. It is very popular with the Princeton Housing Authority. If the Government didn't charge us interest, made that their contribution, the total amount of annual payments would be \$13,440, which is under 50 percent of the present value of the buildings. The interest at compound interest at 2 percent would be 14-percent subsidy by the United States Government, over the entire life of the project, the municipality getting 80 percent of the improved property tax.

Mr. O'CONNELL. I should like to ask one question about the New Brunswick project. As I understand, that is being financed by the issuance of 4-percent tax-exempt bonds of local housing—

Mr. LAMBERT (interposing). Exactly.

Mr. O'CONNELL. Which, if approved, accord full tax exemption, or has that right, and the rents that are set up will be \$25 a month or six dollars and a quarter a room?

Mr. LAMBERT. Exactly.

Mr. O'CONNELL. So the rents are comparable to the rents on Princeton projects?

Mr. LAMBERT. Exactly the same.

Mr. O'CONNELL. And in that particular municipality the tax exemption afforded to the local housing authority to authorize bonds, afforded sufficient incentive to the person purchasing the bonds—

Mr. LAMBERT (interposing). I asked those individuals in that to do it for a purpose. Marshall Field is a wealthy man, and Mrs. Stern is wealthy, and I wanted to demonstrate—they made a thorough investigation. They have the capital and they have the income, whether we like it or not, and their money would be better to be poured out in concrete and workmen at 4 percent to them, which is attractive to them with that exemption, and they came right in. That is only to demonstrate that. I may add about the New Brunswick thing, an interesting thing with the municipality there, that the municipality has chosen to take sites which they have acquired for lack of taxes, delinquent properties that were bringing the town no money; they voluntarily have deeded those to the housing authority. That lessens our initial cost. We could still do it by purchasing property but then the municipality is convinced they were getting nothing from that land anyway, and that eventually they will have an asset of worth, say, \$3,000 and down. You never can tell, if you have inflation and good conditions, it might be worth four or five by that time, and they concluded that was a good thing for the municipality both in Princeton and New Brunswick, the only two places I have tried it. New Brunswick started on its own.

Mr. O'CONNELL. Broadly speaking, you think it would be more desirable to have that type of construction done under private corporation that the type you would say—

Mr. LAMBERT (interposing). I don't have any question in my mind about the delays that come through the municipal body, and quite

properly, too. Private capital, as you know, operates very rapidly, and sometimes very efficiently. In Princeton the housing authority was organized one night and we were throwing dirt the next day.

Mr. O'CONNELL. I have no further question.

Acting Chairman LUBIN. Thank you ever so much, Mr. Lambert. The committee will recess until 10:30 tomorrow morning.

(Whereupon, at 4:55 p. m., a recess was taken until Thursday, July 13, 1939, at 10:30 a. m.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

THURSDAY, JULY 13, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:55 a. m., pursuant to adjournment on Wednesday, July 12, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senator O'Mahoney (chairman), Representative Reece, Messrs. Lubin, Henderson, O'Connell, and Brackett.

Present also: Messrs. Allen Dobey, Department of Justice; John M. Carmody, Federal Works Administrator; Lowell J. Chawner, Department of Commerce; and Peter A. Stone, coordinator of construction studies for the committee.

The CHAIRMAN. Mr. O'Connell, will you call your first witness?

In the meantime, the committee has received from the Connecticut General Life Insurance Co. three schedules furnished by the Connecticut General on behalf of themselves, Aetna, and Travelers, with respect to nonparticipating life-insurance rates.¹ At the request of the Connecticut General these schedules may be inserted in the record.

(The schedules referred to were marked "Exhibit No. 922" and appear in the appendix to Hearings, Part X, p. 4927.)

Mr. O'CONNELL. The first witness this morning is Robert L. Davison. Mr. Chairman, Mr. Davison has already been sworn. He testified before the committee in the early days of this hearing² and at that time his testimony was limited to information that he had collected and then had available relative to costs and other statistical matter relative to single-family homes. At that time it was suggested that he return at a later date to give the committee the benefit of his experience in the housing field, to explain to the committee some ideas that he has as to the possibilities of the development of technical research and standardization and such things as influencing cost, so if the committee have no objection I would just permit Mr. Davison to proceed in his own way and develop the material which he thinks important to be presented to the committee.

TESTIMONY OF ROBERT L. DAVISON, DIRECTOR OF HOUSING RESEARCH, JOHN B. PIERCE FOUNDATION, NEW YORK—Resumed

EFFECT OF TECHNICAL RESEARCH ON HOUSING COSTS

Mr. DAVISON. Now, the housing problem is largely a problem because houses cost too much. There are various ways of reducing cost, lower interest rate, city planning, subsidy, and so forth. I don't want

¹ See Hearings, Part X, p. 4228.

² *Supra*, pp. 4975-4997.

to indicate that those things shouldn't be considered, but what I want to discuss here this morning, there are three different ways of reducing the actual cost of the building, whether it be a single-family house or multiple-family house. As I see it, there are three entirely different approaches to this problem. One is the evolutionary approach, gradual improvement of present construction methods and cheapening, reducing costs on existing construction methods.

That will get you part-way down toward the low-income groups. Another method of approach is the pure research I will describe in a few minutes, and the third would be applied research.

I think the best illustration I know of, of the approach to the evolutionary approach, is that made by the National Small Homes Demonstration. That was an organization fostered by the National Lumber Manufacturers, started in the organization with representatives of various building industries such as American, Crane, Johns-Manville, the lead industry, brick industry, steel industry, Westinghouse, General Electric, and so on.

The organization was pretty representative of the building industry and had very active cooperation from the various Government housing agencies. As their first enterprise in 1936, they built three houses, the plans taken from plans developed by F. H. A., out in Maryland, and as a result of that, they stimulated very materially interest in the low-cost housing field, individual free-standing house. In 1938 they built eight houses out in Maryland, just outside the District here, and demonstrated to builders all over the country that it was possible to get into a lower-price field than they had been in previously.

They know that at least 3,000 houses were built as a result of that program and they don't know how many others were built. But I think the importance of that work of the National Small Homes cannot be judged on just the number of houses that were actually built on that plan but they did arouse the interest of builders all over the country in trying to get into the lower-price class.

For the 1939 program they started work in the spring of 1938 and they set as their objective two basic house plans, one a four-room unit, to cost without land \$2,000. That was a one-story building. Their other basic plan was a five-room and garage two-story house and they set as their objective \$2,500. They had a technical committee working on this which consisted of representatives of quite a few of the firms of the building industry; they had representatives from the various Government housing agencies, and they set out to develop these two standardized plans with that price objective in mind. They developed two very good plans. The four-room house plan is so worked out that it can be used either for a single family or multifamily, the same plan, and can be used either with or without basement. There is no particular merit in that plan compared to any other four-room plan. You can't do much in the way of variation on a minimum cost four-room plan other than just minor details, be sure that your hall space is minimal and there was some problem to getting a plan that could easily be used either as a basement or basementless house.

They did a great deal of work on getting efficient equipment and relationship between equipment. They had one meeting at which they had kitchen experts from all over the country, Government experts, G. E. experts, and so forth, and they really worked out a very good plan, but if it were possible for the building industry to get a

few standardized plans from which they might vary, they might make the room sizes larger, but with basic equipment relationship standardized, it would contribute very largely to a considerable degree, I should say, to cutting costs of construction. If you had the same basic arrangement in your equipment there could be quite a saving, and while this plan is perhaps not being very generally accepted so far since March they have sold only 6,000 but I consider that pretty good for a basic plan.

I think that is going to lead to a greater degree of standardization in the low-cost field and yet won't standardize it to the extent that all houses have to look alike. We have a great variety of exterior appearance with these two basic plans.

The second step of the committee was to budget the cost of the house, allowing a certain amount for various items that go into the house. This break-down is based on the actual cost break-down of a house built on Long Island that sold for \$2,500, and taking out the land cost and profit,¹ they took the same distribution here that they had in that particular house and they set that as an objective for the various industries to try and reach.

Some of the trades and industries involved in the house were able to reach that budget. Others worked on the problem. The technical men were able to develop equipment that would come within that budget, but the results were not as satisfactory as they hoped, but at least a beginning was made toward reaching in the various trades the budget that was set up.

The CHAIRMAN. Do you know how these percentages compare with the percentages in the ordinary small house construction under present methods?

Mr. DAVIDSON. Yes; for this budget we took a house on Long Island constructed under existing methods.

The CHAIRMAN. This was not one of the \$2,500 small houses of which you were speaking a moment ago?

Mr. DAVISON. No; this was a house which had been built on Long Island. If we just set up an arbitrary budget and said, "Such-and-such shouldn't cost more than so much," people might kick and say, "You are cutting our industry down too low." As a matter of fact, most everyone on the committee felt their budget was cut too low. Our answer was, "Here is a house on Long Island built and offered for sale for \$2,400, and this is what it cost."

The CHAIRMAN. This was built by contract under ordinary methods?

Mr. DAVISON. Under ordinary Long Island methods, which aren't ordinary throughout the country, but technically it was the ordinary method.

The CHAIRMAN. What is the distinction?

Mr. DAVISON. Long Island is notable for getting low costs. They buy material cheaper there than most parts of the country and their labor costs aren't as high as most parts of the country.

The CHAIRMAN. It would be an interesting thing to develop why Long Island possesses this distinction. How can Long Island acquire building materials at a lower cost than other parts of the country?

Mr. DAVISON. I don't know whether I can answer that. I can give some information about it. Long Island is sort of a dumping-ground for many industries that have surplus products that they want

¹ See "Exhibit No. 923" infra, p. 5324.

to get rid of, and the competition has been so keen there on Long Island that they have established methods of marketing and prices that aren't the same over in, say, Westchester.

The CHAIRMAN. Perhaps we could arrange to have some other dumping grounds.

Mr. DAVISON. They are selling cheaper on Long Island and giving a good job—F. H. A. approval. This house we examined was a well-built house. Now I believe that if you could find a legitimate technic for duplicating what they have done on Long Island throughout the country, we could go a long way toward solving the problem of the house selling between two and three thousand.

One theory I have had as to how that might be done would be for the manufacturers to get together and say, "We will sell the entire package at such and such a price or a house selling in the two thousand to three thousand range."

The CHAIRMAN. Let the Department of Justice take note of the suggestion of the witness that the manufacturers get together. [Laughter.]

Mr. DAVISON. This is one of the few industries where the manufacturers haven't gotten together, and I believe if they did get together, we would get lower-cost housing.

Mr. DOBEY. May I ask one question. Isn't it true in some of those developments on Long Island, those low-cost houses, that all the houses look exactly alike?

Mr. DAVISON. Some of them do, but in this particular development they have a pretty good variety in the architecture. I have a picture here in this book I could show you of a row of houses that this was taken from, houses selling around \$3,000—most of them sell around that. They have got a pretty decent looking house, a lot better than the \$5,000 houses they used to build on Long Island from the standpoint of appearance.

Mr. DOBEY. You said there would be some variation in style. Would they have a different-size porch?

Mr. DAVISON. Yes; for example, in developing these two houses in National Small Homes, this is an outline perspective of the two houses. As far as standardization goes, if you standardize the cube of the house, that is the shell of the house and then let the local architect or the local builder give any variation he wants, you would be surprised; I have photographs here showing the variation you can get with those two basic houses. Take that five-room-and-garage house, you can turn it edgewise to the street or flat-wise to the street, move the garage around, and you can get a very large variety and yet keep your standard house and your standard equipment, partitions, and all the rest of it.

Mr. DOBEY. Can you vary the windows somewhat?

Mr. DAVISON. We don't show the windows. We show a line for the window sill and upper head of the window. The result is you can put in various types of windows without upsetting the standardization you have in the plan. If you care for it, I will show you a few photographs that show some variations of that basic plan. I don't want to take too much time on that unless you want me to.

Mr. CHAWNER. Mr. Davison, does the scale of operations have an effect? I understand on Long Island builders frequently operate

on a fairly large scale and build a large number of units. Does that have anything to do with cost?

Mr. DAVISON. They try to do it in other places and can't get away with it. Two or three of the builders on Long Island have tried to operate in Westchester and they just couldn't do it.

The CHAIRMAN. Why not?

Mr. DAVISON. Well, they can't buy as cheaply up there and the labor conditions are entirely different up there, and it will cost 30 or 40 or 50 percent more to build in Westchester than it will on Long Island.

The CHAIRMAN. Now, do not the same supply houses sell materials in Westchester as in Long Island?

Mr. DAVISON. Yes; but they sometimes sell through different distributors.

The CHAIRMAN. Well, you haven't made it quite clear to me yet why there should be this very striking difference.

Mr. DAVISON. It is pretty hard to make it clear just why there is.

The CHAIRMAN. You refer to Long Island as a dumping ground for these materials.

Mr. DAVISON. Yes.

The CHAIRMAN. What are the circumstances that make it a dumping ground? Is it because of the railroad facilities?

Mr. DAVISON. No; it is more a matter of your market. In Westchester the people who live there can afford to pay for a ten- or fifteen- or twenty- or thirty- or forty-thousand-dollar house and the people building and selling houses don't have to chisel in order to reach the market. In other places they won't build at all unless they build at a certain price, and the building industry—this is my assumption, I don't have inside information, I just know the results—just figures, well, in Long Island if they don't make this price there won't be any sale, and I think they have got to come to that conclusion in a lot of other places in the United States, but as long as they could sell in Westchester at ten, fifteen, twenty thousand dollars there was no necessity on the part of the builders for chiseling the price down just as low as they could.

The CHAIRMAN. What did you have in mind when you spoke of the desirability of manufacturers getting together to dispose of their materials? How would you suggest that they get together, and what would they do when they got together?

Mr. DAVISON. Well, I would like to preface my answer on that question that this is my own personal opinion and it doesn't represent my trustees in any way whatsoever. I am just saying what I think.

The CHAIRMAN. Very well, we will exculpate them from anything you may say.

Mr. DAVISON. Well, now, if you drop the price on most building materials you wouldn't increase your volume enough to make up that lessened profit, in my opinion. I haven't any basis, I know that studies have been made but I can't testify directly myself. The hardware companies, as an example, will sell hardware at a much lower price in South American or in Europe than they will in this country because by doing that they are not breaking the present market.

Now, if you can establish a procedure whereby in this country you could dump at a lower cost, or at a very considerably lower cost with-

out upsetting your existing market, I think a great deal could be done to encourage low-cost housing. My suggestion on how you might do that would be to have a packaged house. Take these two houses as an example. As far as we have shown in that perspective there, that is without the outside finish, but if you could give a price on those two houses, including all equipment, mechanical equipment, lumber, plaster, and everything else, and let any dealer throughout the country sell that and then pay for it through a central clearing house, it would be possible then for the various equipment dealers and material dealers to sell their particular product at a lower price without disrupting their present high-price field that they are working in, because no one would know what the individual equipment was sold for in that particular house, and a man would have to buy the whole house in order to get the equipment, and I think that one way of facilitating—I know this is counter to one of the acts of Congress, the Tydings Act, isn't it?

Mr. C'CONNELL. I don't think it could be that one.

The CHAIRMAN. It is the Robinson-Patman.

Mr. DAVISON. Yes; the Robinson-Patman. But I have had that thrown at me several times when I have discussed this particular thing. It is counter to the act, but if it would get low-cost housing and at the same time wouldn't disrupt the building industry—and I believe it would be profitable to everyone concerned, and I have discussed it with some industries that have shown some interest in that approach.

That is one way, I think, of getting low-cost housing.

Mr. O'CONNELL. Might it not also be profitable if the groups to which you refer were to adopt general pricing policies which would have the effect of reducing price for the purpose of getting more volume?

Mr. DAVISON. Oh, sure, it would be fine if they would cut the price, but if I were in charge of a company, I wouldn't cut my price so as to double my output of product if by doing so I cut my unit return 80 percent.

In other words, I wouldn't be willing to sell twice as many things at 20 cents on the dollar. I would rather sell half as many with a dollar—it wouldn't be a dollar on a dollar, but 20 cents on the sales price. If I were in the building industry—if it were possible to cut your price in half, it isn't, of course, but if it were possible, you wouldn't increase your sales enough to make up the difference in return.

The CHAIRMAN. You wouldn't on the present volume of construction, but if the volume of construction could be increased——

Mr. DAVISON (interposing). But I don't believe you could increase it enough. If you were selling something at \$5 and there was a dollar profit in it, if you cut it, well, say even \$2 profit in it, including overhead, if you cut that to \$3.50, that would be 50 cents for overhead and profit, and you wouldn't sell four times as many. On the other hand, if you could continue selling that thing for \$5 in the high-price field, that is the high-priced home and office building, and so forth, and yet in addition could get this low-cost market without disrupting your high-priced market, personally I think it would be interesting to the industry.

The CHAIRMAN. What you say seems to amount to the conclusion that in your opinion there isn't sufficient opportunity for expansion of construction of homes to bring about any great stimulation of business in that respect.

Mr. DAVISON. No; I don't quite say that. I think that there is an opportunity for stimulating homes.

The CHAIRMAN. Yes; of course that is obvious, but is it sufficient to make any dent upon our economy?

Mr. DAVISON. I think it is, but if I were a manufacturer, I would hesitate to drop this business that shows a good return in order to have a larger volume that had a very small return. I would like to keep them both. That happens in many industries. You will have an industry that will sell to a certain department store. A man was telling me last night, we were discussing this thing. He had been in the business. He would sell to one department store at a certain price and they would sell for \$10, and another one he would sell at another price and they would sell for \$8, and another one at another price, and they would sell at a different price.

A man who was in the business of making smoking pipes, or tobacco pipes, told how they would make the same pipe and they would label them and sell a certain number at \$5, some at \$3, some \$2, and some at 50 cents. It wouldn't pay that concern to sell them all at 50 cents, but it is fine if you can sell some at \$5 and some at 50 cents.

I think in this housing business if it were possible to have that sort of technic, when you can't sell with a big mark-up, take the less—that is what they are doing in foreign trade. A lot of industries are selling at a lower price abroad than they are in this country.

The CHAIRMAN. Is this your experience that most of these dealers regulate their price according to what the purchaser is willing and able to pay?

Mr. DAVISON. It is not quite that conscious. It is a force rather than a conscious decision. If they can't sell any unless they reach a certain price, well, they may be willing to dump in some community. I know some concerns from first-hand knowledge that have a price structure that is pretty immovable, and in a certain district if they can't get any business unless they change that price policy, they will.

Mr. DOBEY. Don't the people in Westchester pay more for the same building materials, same construction, than anybody else simply because they have more money?

Mr. DAVISON. Yes.

The CHAIRMAN. What I get from your testimony, Mr. Davison, is that the building materials dealers sell to the more or less well-to-do persons in Westchester at higher prices, and what they can't sell to them, they dump in Long Island, and thereby Long Island gets the benefit of the low price.

Mr. DAVISON. That is true, but I don't think of it in those terms.

The CHAIRMAN. But however you think of it, that is what happens.

Mr. DAVISON. Yes; but it is more a question they can't sell in Long Island unless they meet a certain price. Part of that may be true, shipping in from abroad brick and lumber, but other places where they could ship in and don't do it.

The CHAIRMAN. Then the builders in Westchester ought to buy in Long Island.

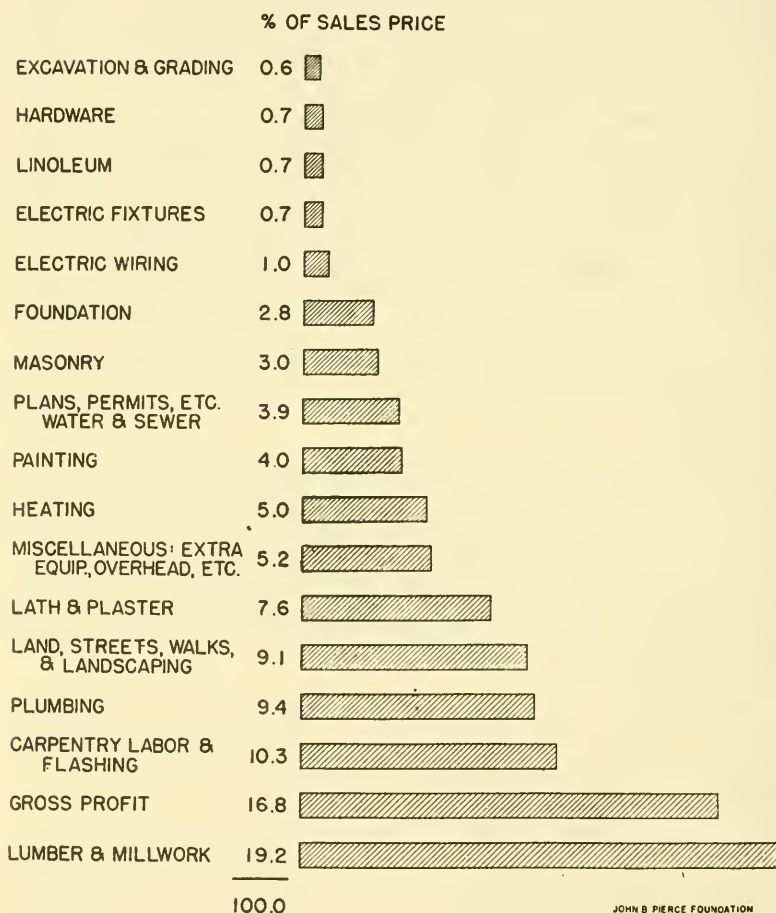
Mr. DAVISON. They would probably get into difficulties if they tried it.

When a Long Island builder can't operate in Westchester, there is something in there—I perhaps am taking too much time on this phase of it.

EXHIBIT No. 923

COST BREAKDOWN OF \$2500 HOUSE

LONG ISLAND DEVELOPMENT-1936
FOUR ROOMS NO BASEMENT



The CHAIRMAN. I understood you to say in describing this chart, the break-down of the \$2,500 house, that this was exclusive of land.

Mr. DAVISON. Yes.

The CHAIRMAN. There is an item here, land, streets, walks, and landscaping, 9.1 percent.

Mr. DAVISON. Let me see that again. I have forgotten which chart. I had several of them. This includes land. I am sorry I made the mistake. I have so many charts I sometimes slip on which one I am using.

The CHAIRMAN. Did you want to have that inserted in the record?

Mr. DAVISON. Yes; if you will, please.

The CHAIRMAN. It is so ordered.

(The chart referred to was marked "Exhibit No. 923" and appears on p. 5324.)

Mr. O'CONNELL. I think you can proceed with the second development of this portion.

Mr. DAVISON. I think there is a great deal that can be accomplished through this evolutionary means, through National Small Homes Demonstration approach and through improved merchandising, and improved merchandising is coming into the building industry. There are little tryouts here and there that I have seen that indicate that costs are being reduced and new methods are being developed, and I think those in industry will agree that little progress is being made.

Now, if you are going to try and reach the man who can only pay \$15 a month rent, or rent equivalent, I don't believe that you are ever going to get a satisfactory answer through any evolutionary approach. I think you have got to go into a research program if you are going to get to that man, and I would like to explain that with an analogy. It is a question of what your objective is. Now, take transportation. If you want to get a means of transportation that will go a mile in 2 minutes, or a mile in a little less than 2 minutes, you quite conceivably breed a better horse that would be able to make that speed. I don't know just how fast a horse can go—I am not a horse racer, or interested in horse racing—but that will give the point. Now, if you wanted a means of transportation that would go a mile in a minute, you just cannot get there by the evolutionary approach, by improved breeding of horses.

The automobile did not evolve from a horse and buggy. You could have bred horses until the cows came home and you never would have gotten an engine. There had to be some real, basic research.

I want to speak of pure research and applied research. This evolutionary approach is what you have got to consider for the near future, but I want to speak a little bit of what we will have to face some day, and we should have faced years ago—this problem of research.

Taking that transportation analogy again, if you wanted to transport a picture from London to New York in 10 seconds, it would be just completely hopeless to turn that sort of problem over to the Department of Agriculture and say, "Breed a horse that will take this picture from London to New York in 10 seconds." That is an absurd analogy, but I think there is some real truth in it, and I think we have got to face it sooner or later.

When I was in London 2 years ago looking into some housing, I was told that I ought to go down to Cambridge to see a crystallographer by the name of J. D. Bernal. He was working on the housing problem. He had set up certain desiderata for an ideal atomic structure for an ideal exterior wall. He wanted his atoms so arranged that high temperature radiation would go through and low temperature wouldn't go through. He wanted his atoms so arranged

so there wouldn't be cleavage planes between the atoms! He wanted them arranged so that you would have bracing in different directions. Now, he made some models of atomic structure. It is inconceivable the infinitesimal size that he was working in. I can give an illustration of it. If you took a postage stamp and magnified it until it covered the United States, then your atoms would be about an inch apart, that is how small a building unit he was working in. After he had set up his theoretical desiderata and all these various factors that he would like to have in atomic structure for an ideal exterior wall, he began looking around at nature to see if he could find anything that approached it. He found in bamboo a sort of vegetable silica, sort of a vegetable glass, that had many of the characteristics that he wanted. Then he made some in the laboratory, a very small piece.

Maybe this would never be practical; he doesn't know whether it can ever be made commercially. I am talking of pure research. He made some in the laboratory. It was a third the weight of cork, three times the compressive strength of cork, chemically inert, inorganic, and noninflammable, and if you built a wall of that material, you would have almost perfect insulation, and it would weigh 1 pound per square foot of wall.

That sounds fantastic, but it isn't half as fantastic as the radio and some other things that we have today.

Now, it just burns me up that we are working in housing and we aren't doing any research in housing. Housing is so much more important than television. I am not running down television, I think it is a swell thing, but it is so much more important.

The CHAIRMAN. Who is conducting this research?

Mr. DAVISON. He was doing it, and it is very little research. It was just a little sideline that he did some work on.

The CHAIRMAN. What was his business?

Mr. DAVISON. He is a crystallographer, studying crystalline structure, how crystals are made.

The CHAIRMAN. At a university?

Mr. DAVISON. He was at the university; he is now in the University of London, and I just read in the paper the other day he has been talking before a group in California. He may not have the answer. I am just giving that as an illustration of pure research approach to housing. Now they have done that pure research approach in transportation; in almost all fields, but we haven't had a bit of it in housing, just a little bit, but that is just some work he did on the side there in this laboratory. But there is a tremendous opportunity of pure research in housing.

The most fantastic thing you could think of, of what might come out of such research wouldn't be half as fantastic as television. Nothing that I can conceive of, of which might happen in housing, is half as fantastic as television, but we just haven't done any research on it.

Now the United States Government is spending next year, I believe it is, \$10,000,000 on research in aviation. That is being directed by the National Advisory Committee on Aviation composed of representatives from industry and professional men from the Government. They are doing some great things, but we are not doing anything in housing. The Government is going to spend hundreds of millions and industry is going to spend billions on housing and yet we are not doing any fundamental research and the possi-

bilities are tremendous. Now I gave this pure research example as an extreme example, but then you can come back to the applied research, which is practically next year or the year after.

I would like just to show a few samples of material that I brought from various industries to indicate what might be applied in the very near future.

There is a panel called marinite, made by Johns-Manville. They use it on ships. That is a half inch thick. It stood a 2-hour fire test at 2,100 degrees Fahrenheit, suitable for fireproofing on ships. Nothing is being done about using that in housing. It could be.

The CHAIRMAN. What is its cost?

Mr. DAVISON. Now that is an embarrassing question. It sells for 43 cents—no, wait a minute; it sells around 50 cents a square foot. I happen to know from one of the men working in the company that that is a specialized sales field with a very limited market and they are making it in a rather inefficient way, but he gave me an estimate which I am not a liberty to state on what it could be made for if they put in full automatic machinery, and it would be so cheap that, well, it would cost half or a third less than any comparable present existing building material if they would only use it in place of some of the materials, say in apartment-house construction. That is one material.

Mr. DOBEY. Why don't they? Aren't they interested in using it in houses and developing it for that purpose?

Mr. DAVISON. There are so many reasons why they aren't I was trying to think which to start with.

The CHAIRMAN. You have described it as a fireproof material.

Mr. DAVISON. Yes; but they use that for partitions between cabins on ships for fireproofing. They could use that. They have painted this on one face. You could use that as a partition, but nothing else.

The CHAIRMAN. How strong is it? What weight?

Mr. DAVISON. That has ample strength, it is much stronger than plaster board—ample strength, of course not according to most of our codes. That is one reason why they are not using it. Our present building codes are one reason why we are not getting these sorts of things. They were formed in the days of masonry construction. Unless a wall is a quarter-inch thick it has to be 12 inches thick or something like that. What I mean by that is the New York building code will permit a glass wall in a building. Some buildings there in New York have glass walls three stories high, that is a quarter-inch thick, and that will stand 5 minutes of fire test, but if you don't use glass that will stand 5 minutes of fire test, you have to use 12 inches that will stand 4 hours. That is how absurd some of our building codes are.

Practically nothing is being done about it, and some of the companies that have products of this sort, I don't blame them for not going out and trying to change the whole world. It would be quite an expensive proposition to put it over, but I think the Government, if they would get back of the research program such as the National Advisory Committee for Aviation are conducting, and have the same sort of program in housing, within a couple of years they could have built and demonstrated, tested and everything, an apartment house costing not more than \$500 per room, including all equipment and everything. We

have made preliminary drawings and estimates and taken prices that we know about of materials on shelves, and I am certain that with the proper set-up with representatives from industry, technical representatives from Government, with ample funds, that within 2 years they would have proven that you could build apartment houses from the standpoint of the tenant better than any today at half the cost or less.

The CHAIRMAN. How many other new materials do you have knowledge of?

Mr. DAVISON. I have quite a few.

Mr. HENDERSON. Mr. Chairman, may I ask a question?

Mr. Davison, in response to the question as to why new materials weren't used, you said there were many reasons. But isn't one of the principal reasons the fact that the manufacturer of a particular material is not also a manufacturer of houses?

Mr. DAVISON. Right. That is very true, and this has to be used in combination with other things. For example, a man might have the best carburetor in the world, when they were using horses and buggies and it wouldn't be worth anything, and somebody else might have a good piston rod and another man a good tire, but this can't be used alone, it has to be used with other things. Bethlehem Steel, for example, have one product—they made a few up for us—combined with this to make a nice exterior wall, but neither of them alone can make a satisfactory wall, and this will almost do a satisfactory building. You have to have floors and the other things but there is enough stuff lying around to do it.

The CHAIRMAN. How many other materials of this kind do you have knowledge of?

Mr. DAVISON. Well, here are two more materials made by that same company.

The CHAIRMAN. Before you go into the description of the materials I am trying to develop numbers now. You have two more. That makes three. Have you any others here this morning?

Mr. DAVISON. Yes, and I can tell of others I haven't got here. I have only six samples here but I could tell you of at least six others that I haven't got here.

The CHAIRMAN. At least there are 12 different materials which could be used for building construction to much better advantage than the present materials, according to your point of view.

Mr. DAVISON. I would say at least a dozen and there might be a lot more and there might be one or two less. We made a list a while back of some of the various fields that should be explored in this.

The CHAIRMAN. If those were developed for commercial use, they would displace materials that are now in common use, would they not?

Mr. DAVISON. Yes, sir; decidedly.

The CHAIRMAN. And therefore they would have an immediate effect upon the profit and the employment of those who are turning out the other materials for which they would be substituted?

Mr. DAVISON. They would.

Mr. HENDERSON. Let me ask, Mr. Chairman, isn't it possible that there would be an increase in building if these were introduced so that the total employment for all kinds of material would be considerably increased?

Mr. DAVISON. That is true, and you are not going to get the volume of building, you can't get 525,000 dwelling units a year on a sound

basis—you might get them in overbuild or something of that sort, but you wouldn't get them on a sound basis—without subsidy unless you are able to build a dwelling unit, either free-standing or apartment house, that will rent for \$15 a month per unit.

As I said in that first talk where I was using all those figures, I wanted to prove you can't get the volume you are out for unless you do get into something like this. It is just impossible.

The CHAIRMAN. And there is no way of getting into this except by way of research, either on the part of some manufacturer who would make a profit out of the sale, or pure research by the Government for the benefit of all who might be interested in the construction industry, either from the point of view of the suppliers of material, the builders, or the owners.

Mr. DAVISON. Yes; that is true. The difference you are making between pure research and applied I wouldn't have given quite the same way. The Government can do applied research—I should think they should do both—and in 2 years I believe they could demonstrate a house at half the cost, with better quality than we now have. At the same time we ought to do some pure research, but temporarily let's forget the pure research and talk of what might be done in 2 years.

I don't believe any one industry can or will develop an apartment house at half the cost of existing methods. There are too many different industries. You have to have a central clearinghouse. In this National Small Homes Demonstration project we had a central committee there from the various industries, but as far as research or applied research went, there was almost none. Some companies did a little, but after all, well, it was something new and "Why stick our necks out?" It is going to take a central group to guide this and to force this thing along.

The CHAIRMAN. In other words, to develop materials of this kind it is necessary to have the active interest and work of some large organization, either a business organization or the Government.

Mr. DAVISON. And I don't believe a purely business organization can do it because they are such a small factor in the whole picture. For example, if you had a committee, say, of five Government housing experts and five men from industry, and five technical experts from some of the universities, and so on, and the man from Johns-Manville said, "That would make a swell wall for apartment houses," and this committee after study and analysis and test said it would, then you might be able to sell the Johns-Manville Co. on making it. If one of their technical men tries to do it, he hasn't the chance of a snowball, and so forth.

The CHAIRMAN. Your testimony illustrates very strikingly the principal characteristic of the modern era, that all of these devices which make life so easy, luxurious, and simple, like this microphone, for example, and the telephone and the electric light, are possible only because of broad, cooperative effort.

Mr. DAVISON. Yes.

The CHAIRMAN. They cannot be developed by an individual acting alone. Now your difficulty in housing is that an individual building a home can get his material, historically speaking, right where he lives. He chops down some trees in the wood in order to get logs with which to build houses. We are still building log houses out in Wyoming, for

example, in some places. But to build homes of the material that you have here it would be absolutely necessary to have collective effort.

Mr. DAVISON. Yes, sir; and taking this as an example, this microphone, there is a very simple problem that one company can develop, but you take everything that is in this room—this isn't a very good example because about all you have is stone and microphones, but in a house you have so many different companies represented.

The CHAIRMAN. Of course we have the most important of all, we have a few brains in here, or at least we hope so.

Mr. DAVISON. I am glad you mentioned that. [Laughter.] In this research you have got to have two approaches. You have got to study also how people live and what they do. We know almost nothing about how people live and what they need for houses. There has been only one basic good study that I know of, and it was made by a German in Sweden who is now a Rockefeller fellow and is going to be at Minnesota this year. He went in and had people stay with the family day in and day out and schedule what they did every few minutes throughout the day, and represent it graphically. You have to study how human beings live, too, but I am limiting myself to a discussion of the technical phases of housing. You certainly have to take in the human being, as you suggest, but that is another thing and that should be in this study.

In an outline I made here for research—I was on the Housing Council of the League of Nations and they were discussing the possibility of setting up an international housing research. We are still discussing it. The very first thing would be a study of how people live. The next thing would be to get into the technical side. You have to consider both of them.

Getting back to these materials, there are a lot of materials that are commercially available today, or have been made in pilot plants, which could be put into commercial production, that would give you a very much more livable house—and I say livable rather than stronger or anything of that sort—than we have today, at about half the cost.

Now, this (Transite) wouldn't stand the same load test that you get on a brick wall, but who needs it? We have strength in the wrong places in building. You don't need all that compressive strength you have, you need lateral strength. You take a sheet of this 8 feet long and support it—if you took a brick wall and laid it horizontally, the brick wall would break of its own weight; this wouldn't. The brick wall as a bearing wall would stand a lot more than this, but after all, the economical way of supporting floors isn't by walls, it is by columns. They found that in skyscraper construction. They have a column every 20 feet or so. They support the floors with that. All they use a brick wall for is to fill in between those floors and the columns and floors support the wall.

If you are going to support the wall, why should the wall be a bearing wall? Why should you not use something of this sort and let it be a curtain wall and save a lot of money? But it is going to take some organization to bring these things together. There is an awful lot of that.

For single-family houses there is a plywood with an asbestos board glued to both faces with a phenol formaldehyde glue that is waterproof. You could build individual houses; you might build two-story

row houses out of a material like that, at a fraction of the cost of our present wall.

Here is another insulating material that has been impregnated. It is an ordinary insulating board impregnated with a new process that makes the face waterproof and very hard. Tests haven't been fully run on this but it is possible that that material might make an excellent wall of a building. All you would have, say, would be 2 inches of insulating material for the wall of your building. We used to build brick walls 16 inches thick, and they were fairly satisfactory. They didn't leak very often. Then we cut them down to 12, and then cut them to 8. When we got a brick wall 8 inches thick in order to cut costs, we had to add a waterproof membrane on the back, and then we had to add insulation in order to have a satisfactory home.

Instead of having a bearing wall you waterproof and insulate, it would be very much simpler just to take an insulating material and waterproof it and support it. Of course, that is an entirely different approach and the brick manufacturers aren't going out to develop that sort of approach.

The CHAIRMAN. Won't you name the various materials you have there?

Mr. DAVISON. Well, this is Transite encased insulating board. It consists of 2 inches of fiber insulation board. There are several companies that make this. This particular sample was made by J-M, but at least three companies in this country are making this. It has one-eighth inch of Transite on each face of asbestos board. It has been used in prefabricated houses but isn't exactly satisfactory because you will get a little moisture penetration and it delaminates, but if J-M or anyone else that is in this business really saw a tremendous market for this stuff, if a central group here built a house and popularized it, they could make that so it wouldn't delaminate. It isn't satisfactory but it could be made so.

Here is another material which is called expanded Transite. This is similar to your Transite encased insulating board, except instead of having an insulating board core, they have an expanded Transite which is cement and asbestos fiber. They made some of this. They are not in production now. They did make quite a few feet of it. That material alone I don't think is much good, but if that material had reenforcing rods in it and you made that 4 feet high and 12 feet long, with some reenforcing rods in it, and a window sill here and window head at the bottom, and you sold that not as a building material but as a completed wall, you would get a wall running about 50 cents, it might run a little higher than that, a square foot, for finished wall, and you would have better insulation than you have in a brick wall and you wouldn't have these moisture problems that everyone is faced with today and which of course the Bureau of Standards is working on, trying to see how to stop brick walls leaking, and the reports I get are that they are having a great deal of difficulty on that particular problem.

I could show you an illustration of what this thing might look like, if you care to see it. Shall I show that or not?

The CHAIRMAN. It might be very interesting.

Mr. DAVISON. This is a cross-section of the Beaux Arts Apartment house. This isn't the Beaux Arts but the Beaux Arts looks quite similar to that, where you have your horizontal wall band and then

you have windows and blank panels and windows. We made the drawing exactly as it occurred in the Beaux Arts Apartments and we had Mr. Burge who was working for us, who had been estimator for Starrett Bros. & Eken, estimate the cost of this wall per linear foot and then we divided it into cost per square foot. He estimated this wall would cost, back in 1932, \$1.92 per square foot. I think that is a little high; I think today we might be able to do it for \$1.25 or \$1.50.

We also estimated the theoretical cost—I want to emphasize theoretical cost—of a wall of this character (expanded Transite) with a light truss in it—as I said, we would build it with a light truss imbedded in the material, with a window sill at the top and window head at the bottom—and the cost would be 15 cents per square foot of wall.

That performs the function of this I-beam in other construction which carries floor and wall, and this costs 23 cents per square foot of floor area. In other words, you would get your truss, your floor-carrying beams, your window sill and window head at less than the cost of this I-beam. Then your only additional cost for your wall is the insulating material that you encase with, plus the waterproof coating.

I might say on the truss, we got a price from Bethlehem Steel on a quantity of only 200 of these trusses, of 15 cents a square foot, and as to their strength, when we first designed this truss I took it to one of the big steel companies and their chief consulting engineer analyzed it. We had a little strap iron for the floor to rest on. He said we would have to put in 10-inch channel to carry the load. I went around to the American Institute of Steel Construction and said, "I don't know as much as this man but I believe he is wrong and I want somebody to tell me I am right." And they said, "We have an engineer who has worked in an iron and steel company and he knows how to figure," so he figured it and he said it would go five times design load. So we built the truss down at Bethlehem and tested it and it went over five times design load. I went back to this engineer with the steel company and he said, "I was just following the handbook."

Now there is too much of that following the handbook. You have got to break away from some of those old ideas.

In this particular four-story building here, we estimated that for the corner column we could carry a four-story building with a $2\frac{1}{2}$ by $2\frac{1}{2}$ by $\frac{1}{2}$ inch angle, that is an angle $2\frac{1}{2}$ inches this way and $2\frac{1}{2}$ inches this way and only $\frac{1}{2}$ inch thick to carry a four-story building. That sounds pretty bad, but as a matter of fact that figure is in the handbook. By having a truss 4 feet high and 12 feet long, surrounded with the window sill here, the window head here and an angle iron at each end, that braces the corner column in two directions so the unbraced column is only 4 feet, and right out of the handbook, any engineer—I have the data here if you want to insert it in the record—can figure you can carry a four-story building on a $2\frac{1}{2}$ by $2\frac{1}{2}$ by $\frac{1}{2}$ inch angle.

Well, of course you couldn't possibly build a thing like that in any city because the building codes don't recognize that sort of thing. But if the Government had a central housing research and would build a thing of this sort, test it, certify to the fact that it will carry the load, then you might be able to do something. I have been talking

just about exterior walls. This applies to everything in the house. There isn't a thing in the house that is done right.

Mr. DOBEY. Are these various materials that you have mentioned patented products?

Mr. DAVISON. Are they what?

Mr. DOBEY. Are they patented?

Mr. DAVISON. Patented?

Mr. DOBEY. Yes.

Mr. DAVISON. Well, some of them are, but there are three companies making this. I don't know whether they have an interlocking patent arrangement or not. This particular material here of course is patented (referring to Marinite). But I have seen quite a few other materials that approach this. I don't mean these are all, but these are just a few examples to illustrate that there are today commercially available materials which can do something if they are worked with.

Mr. O'CONNELL. Of course, there would be a substantial amount of resistance to the sort of change that you are proposing, would there not, not only from building codes but other groups that are now supplying various types of materials such as the chairman said that would be supplanted. Do you think that resistance would be more easily overcome if a research organization such as the one you suggested were set up?

Mr. DAVISON. Yes; I think that is the only way you could overcome it. The Government couldn't possibly do this alone, in my opinion. If the Government didn't have somebody else to pass the buck to they would just get in awful hot water trying to do this thing. At the Bureau of Standards they don't dare even mention when they run a test what they are testing because of somebody whose material didn't test as well, and so on, and so on.

(Mr. Henderson assumed the chair.)

Mr. DOBEY. I was going to suggest that, on the other hand, the Government or any other body that promoted the use of those products would certainly be assured of active cooperation of people who had patented them.

Mr. DAVISON. Yes; I think they would, but if you built a test apartment building, say you built a 4-story apartment building, you might have in it 12 different materials, and publish the tests and publish the names of the materials that these tests are on and then let people make their selections. I don't think it would be limited to any one firm by any means. You might have metal, and there is a whole variety of things that could go into such a thing. You might use gypsum plank for your floors. There are a lot of things that could be considered in this. What I think would be very essential, if you had any hopes of success, is that you set your budget first, you say this thing shall not cost over \$500 a room for a 4-room apartment, then you budget it down, and that allows 50 cents a square foot of floor and 50 cents a square foot of wall, so much for partitions, so much for plumbing, and so much for heating, and then say, "We will not test any material that doesn't come within this budget," and that is the way you are going to get some place. This idea of testing materials, cost what it may, I don't think is going to get the results that you need.

Acting Chairman HENDERSON. I gather what you are saying, Mr. Davison, is that you look at this big potential market which exists for

housing and for the employment of men and funds, and you say, "How do we reach that market? We have got to have a house that would cost \$500 a room for four rooms." Then you would try to put the best technical brains to work at meeting that particular demand; you would try to bring the house and the demand sector together rather than attempting to find what is the lowest cost for existing materials and then totaling those costs..

Mr. DAVISON. Yes; now let me give an illustration of that. I was talking a while back with Delano on this same problem, and he said he knew Ford in the days when everyone thought Ford was crazy, and he said to Ford, "How did you get that price of \$365 for your automobile?"

Ford said, "Why, I wanted to sell for \$1 a day."

Now you have got to use that same technique in this thing. You have got to say, "We want an apartment house or a single-family house that we can rent or rent equivalent at \$1 a day or less than a dollar a day, and we are just not going to consider anything that doesn't come within that, and if we have to leave off the self-starter, and if we have to leave off the spare tire, that's too bad but we are going to come within that." I think we can have the self-starter and the spare tire and a few other things; I believe that this apartment house with new methods—and I am not speaking of any particular new methods, but if you had the right group running this thing I am sure you would get several apartment houses that would be twice as livable as we have now—not twice as livable, but as livable and more livable than we now have—at half the cost.

Mr. CHAWNER. You mentioned building costs as being one of the difficulties that you run into in introducing materials of this kind. The possibilities of the use of wall materials that you have indicated here look very promising.

Mr. DAVISON. Yes.

Mr. CHAWNER. What would the Federal Government do in the way of developing new building codes?

Mr. DAVISON. Back in 1923 the Bureau of Standards ran quite a few tests on plumbing, called the Hoover Plumbing Code, the Bureau of Standards minimum requirements for plumbing. They said a 3-inch stack was ample, that venting under certain conditions was ample, and so forth. Everyone knows about that, and most people agreed that that would be satisfactory. Now it isn't worth while for the builder to fight his local code just to change from a 4-inch to a 3-inch stack and eliminate a few vents. There isn't enough saving in dollars; there may be a large percentage of saving, but it isn't enough on the job or in dollars to make it worth his while fighting. Now suppose everything in the apartment house violated the building code and you were able to cut the cost in half, there's something worth fighting for. Suppose you built this experimental apartment house and used maybe 12 different construction methods and materials in it. Taking the fire angle of the building code; take the strength first, and load the floors the maximum that you could possibly get under human occupancy; you might figure that you would have people in that room shoulder to shoulder, and figure the maximum that is possible, and then see what your flexion is, and so on, and load it up to what you want as a factor of safety. Now the factors of safety in the building industry run all the way from 5 to 50.

Let's take a reasonable factor of safety and if you are aiming at a very low cost you are going to reexamine your reasonable factors of safety. Where you are not thinking in costs you may say, "Oh, well, we may as well have a factor of safety of 10," and so on, but when you are trying to get a low cost you reexamine those factors and see whether they are really needed. I don't know of any apartment buildings that have fallen down in this country after they were erected, and I don't know of any houses that have fallen, but I think our codes are altogether too strong. When you take them on the fire angle, and there is one of our big angles; in the Bureau of Standards test, for example, they have a gas furnace and they move it up against the sample. Well, now, let's build a room, a typical room, 12-by 12-foot; and we have a third of the area glass. Let's move this up against a gas furnace, and at the end of 5 minutes you have a temperature of something like 1,200° or 1,300° F. and your glass window goes. Now how long could a person stay in that room after that glass went? Well, if a man would be dead at the end of 15 minutes, why do you want the rest of the wall to stand 4 hours? Let's look into some of those things. Some of these building restrictions there is no sense to.

MR. CHAWNER. Do you think the Federal Government could set certain standards of use, if the Federal Government would say that this wall would be suitable for a particular use, that the force of public opinion would compel the local communities to adopt these materials and make them permissible under the local building codes?

MR. DAVISON. If you could build a swell apartment house just outside of, say Minneapolis Building Code limit, at \$500 room cost and inside it was \$1,000, I think the city fathers and everyone concerned would pretty soon change that code. They are not interested in whether you can do just a stack at 50 percent less cost; that wouldn't make any difference, but if you could do the whole thing it would. But I don't believe it would be safe to let the Federal Government establish minimum requirements. I think there should be a little different approach. Build an apartment house at \$500 room cost and then say to the Federal Government, "You prove to us that this isn't safe." There is quite a difference. The present standards that they have in mind, in my opinion, are needless. Their walls should stand a 2-hour test when the window goes out in 5 minutes. Who's going to stay in that room? If they are going to fry the people in the room at the end of 10 minutes, for the safety of life why do you want the wall to stand for 2 to 4 hours?

MR. CHAWNER. I think we all agree that these building codes are a distinct hindrance to the use of improved methods. I should think it would be valuable for us to develop a means by which the Federal Government might be helpful.

MR. DAVISON. Yesterday I spent 2 hours talking with the chairman of one of the building-code committees that is, in the Government, and what they have in mind for minimal building codes is altogether out of line, in my opinion, with what we should have for minimal codes, and I don't think we are going to get them to consider revising the codes sufficiently downward until you have a physical demonstration for them to see.

MR. CHAWNER. You are referring now to a typical building code which the community might use as a suggestion to the Federal Government.

Mr. DAVISON. Suppose that the Government had a research organization similar to the National Advisory Committee on Aviation, only in housing. Suppose at the end of a year and a half they had a four-story apartment building here, part four-story, part two-story, using different materials in different wings, and so forth, and then load that up with furniture and just overload it with furniture, the absolute maximum that anyone could put into it, and then have your fire chiefs and experts, and so forth, around and test this thing and if they find that at the end of 15 minutes with this the whole building goes and anyone in it would be smothered if they were still in the building, or at the end of a half hour, whatever it may be, what is the sense of having the test carry appreciably beyond the period at which people would be dead anyhow?

Mr. DOBEY. I think some of those building codes may be attacked legally on the ground that they aren't reasonable to police regulations and that they restrict the flow of goods in interstate commerce.

Mr. DAVISON. I am not worried at all. If you once prove that you can do a \$500 room cost that is satisfactory. If you can demonstrate it here I think the cities will be awfully fast to take it up. What you might possibly do with the Government would be to say "Here, we will loan \$500 for U. S. housing in your community and you can have your own building code if you want to put up the other \$500", and I think they would pretty soon come across. I don't think you have to do it particularly by legal means; I think if you just demonstrated that it is possible to do it it would go very fast.

Mr. STONE. Mr. Davison, isn't it a fact that most building codes now provide for new materials provided that the safe construction and soundness of those materials could be demonstrated?

Mr. DAVISON. Yes, they do; but there are several answers to that. I know some people who have tried to get new methods across in local communities and it just isn't worth the effort. If you only have a few things in the building, if everything is wrong, unless you have a product that is very much better it isn't worth the effort. We don't have a product that is enough better for the whole house to make it worth the effort to try to change the code. Where you do have right of appeal, the codes are frequently worded in this sort of way. They will say: Steel column must be protected by an insulating material, by, say, 4 inches of brick or 8 inches of brick and 4 inches of concrete, whatever it may be, or other material which will prevent a temperature rise of more than 250° at the end of an hour. There they will give you a chance of appeal, but how do we know that we need that? Maybe we could have a steel column without any insulation. Maybe you don't care if it rises 250° in an hour, or even 1,000° in an hour. Maybe the people would be cooked long before that time.

Mr. STONE. Your objection is that the standards set by such codes are too high for real need?

Mr. DAVISON. They are—they may not be too high for real need if you are having a 30- or 40-story building because you might be 4 hours in the top of a 30-story building with a very swell fire on the first floor, but I think they are altogether too high for a two- or four-story building.

In New York you can have wood floor joists covered with plaster and that wouldn't last over an hour, and yet your wall has to stand 4 hours. There is a lack of logic in that.

I might tell one illustration of the illogical building codes. About 12 years ago I was doing some selling work with an oil company and they wanted to erect a steel-frame filling station, stuccoed on the outside, up in Providence, R. I. They came back and said the plans were all wrong, that this was a steel structure and you had to have 4 inches of concrete protection—it may have been 2 inches, I don't remember the exact amount—around your steel columns; you had to have a certain width of wall and a certain footing, 18-inch footing, and so on. I went up there and found right in that same district little portable steel filling stations that didn't have any of these things, so I went to see the building inspector and said, "Now, you have turned down these plans, suppose we just put sheet metal on the outside of these steel studs in place of stucco, then we will come under your other code and we won't have to have these big footings, we won't have to have concrete around our columns, isn't that right?"

He said, "Yes."

I said, "Can we paint that steel with a cement paint so it will look like stucco?"

"That is all right."

"Do you care how thick the paint is?"

"No."

"Can we perforate our metal building so the paint will hang on?"

He got the point and said, "All right; go ahead and build your building."

There are a lot of those things in the building codes that are perfectly illogical.

Mr. STONE. Leaving the subject of building costs for a second, have you made any studies in regard to prefabricated houses?

Mr. DAVISON. Well, I have been very much interested in prefabs for a great many years. I think eventually prefab will come, but I don't think it is quite here yet. There are a couple of concerns that are doing some prefab; and I think they are doing a pretty good job, but most prefab today I don't think has quite arrived yet; I don't think they are giving a cheaper product in most cases. It think it is coming, but it isn't here yet.

Mr. STONE. Are there any cases where it is possible to get a cheaper product, that is, to your knowledge?

Mr. DAVISON. Yes; there are two companies that I think are giving the purchaser in certain communities a better house with semiprefab of traditional materials than they could get with the traditional methods. Take one, Homasote. They make an insulating board and the way they are doing this prefab is that they license dealers in various sections of the country to use their construction method, which is based on a modular method, and these dealers buy the Homasote in board form and then they have jigs in their little shop and apply this Homasote to their sections for walls, partitions, ceilings, and roof, and in many sections they are making a saving. I don't think on Long Island that they could compete with the Long Island builder, but in many parts of the country they are making a saving through this method. There is another company, American Houses, that have had three different construction methods, and their last construction method when it is finished gives you really a traditional house, but they are doing shop fabrication on parts of it.

I believe that their statements are that they are saving 10 percent in many cases on the cost of the structure; that is, the sales price is

10 percent less than the traditionally built method. A good part of that is due to their purchasing power, and I think they are doing a good job in the traditional methods. I don't believe, though, that your eventual prefab is going to be prefabrication of traditional methods. I think that is the evolutionary approach, and is the practical thing today, but I know American Houses agree with me that eventually it is going to be a different material that will make prefabrication really go places.

Mr. STONE. Then you would say that the only successful prefabrication to your knowledge is merely the prefabrication of wall panels, roof panels, and partitions; is that right?

Mr. DAVISON. Yes; at this time.

Mr. STONE. And that results in approximate savings in most cases of 10 percent, and that saving is due to purchasing power.

Mr. DAVISON. It is to a very considerable extent due to their purchasing power and the efficiency of putting the materials together rather than in a new technic in the final structure.

Acting Chairman HENDERSON. Does that mean, Mr Davison, that if we had a type of construction company which would take the orders, assemble all the contractors after arranging for plans, arrange for the financing, and, in general, do building on a fairly large and somewhat factory scale, there could be a considerable saving?

Mr. DAVISON. I think, properly done, that there can be, but most of them that are trying it don't know how to do it. There have been quite a few attempts that have been dismal failures, and it is a very, very difficult thing to do, but as I say in this one case it is being done and I believe other people will be able to do it with a saving of maybe 10 or 20 percent over what it would cost to build the identical house on the job.

Acting Chairman HENDERSON. Why do they fall down on those attempts? Is it that they can't get enough business to keep continuously busy, or do they run into difficulties on finance, or what is the major difficulty?

Mr. DAVISON. Most of these large-scale developments, where they build a large number of houses in one group, have been in one location and frequently in a location where there hasn't been much building in the near past and there is a shortage of efficient labor and the organization has had to be built up for that specific job.

Now, on Long Island, you have the reverse. On Long Island, over a period of years, they have been building a large number of houses by various contractors and they have developed their techniques. It is quite satisfactory on Long Island, because they have developed their techniques and the labor is available and the market is adjusted to mass buying, but in other locations where the technique hasn't been developed by the executive, the man running it, where the labor hasn't been trained in this thing, and where they are not used to mass buying, it hasn't been very satisfactory. But this Homasote development where they are using small organizations around the country, decentralized control, seems to be fairly satisfactory. This thing of American houses reaches only down into, say, the twenty-five hundred and up class. Most of their stuff is three thousand and up, and a great majority of the stuff is around five thousand.

They are very definitely working on getting into the market in Texas in selling a house complete for around \$1,250 to \$1,500 with an

entirely new construction method, complete prefabrication, using phenol plywood.

Acting Chairman HENDERSON. Would there be any basement?

Mr. DAVISON. No basements.

Acting Chairman HENDERSON. No heat?

Mr. DAVISON. Heat, yes.

Acting Chairman HENDERSON. What kind of heat can you supply in a house costing \$1,500?

Mr. DAVISON. A pot-type oil burner, and in some places gas.

Acting Chairman HENDERSON. So in a climate like that it is possible to escape the very heavy charge that we have in the Northern States.

Mr. DAVISON. Yes.

Mr. O'CONNELL. Referring to your testimony generally, I take it that you are very doubtful about the possibilities of getting a very substantial reduction in the cost of home ownership without breaking away from the traditional methods and traditional materials that have so far been used, and that it is your view that the best way to approach the problem of using new methods and new materials is to create a research organization within the Government, the function of which would be to adopt the methods that you refer to as pure research and applied research, particularly applied research with a view to getting something done in the immediate future. Would that be a fair statement of your position?

Mr. DAVISON. Yes; with this addition to that statement, that the governing committee be set up somewhat similar to the National Advisory Committee on Aviation, in other words, to have a third representation from the Government, a third from industry, and a third professional that are neither in industry nor government, to have a well-balanced control there so that no one group can stop the progress. If industry is objecting, the Government and professionals can gang up; if pressure is brought on the Government, industry and the professionals can gang up.

With that sort of set-up, you might get somewhere.

Mr. O'CONNELL. It is your view that that type of approach would help to overcome the natural resistance to change that we referred to in the development of new materials and new methods, and I take it you also are quite hopeful that the demonstrated results of this type of approach would do a great deal toward correcting the general defects in local building codes.

Mr. DAVISON. I think it would. I think if you could demonstrate a \$500 room cost that you wouldn't have to put any pressure on the local codes, that they would go for it. Housing is a political matter, and you can show them that the consumer could get half the rent and not just a few of them, like a subsidy, that the master consumer could pay considerably less for rent, not maybe half, the local political powers would be very quick to take such action as would be necessary.

Mr. O'CONNELL. I have no further questions. If the members of the committee have none, we are very grateful to you, Mr. Davison.

This afternoon we have three witnesses. We had hoped to cover two this morning, but, unfortunately, we only covered one.

The three witnesses that we hope to cover this afternoon are Mr. Hoess, a man who has done some work in the construction field for the lower-income group; and a Mr. Binns, a builder from Philadelphia; and Colonel Westbrook, who will discuss with the committee a plan

which he has. The order in which they will appear is not indicated by the order in which I gave their names. I am not entirely sure yet.

Acting Chairman HENDERSON. The committee will stand in recess until 2:30.

(Whereupon, at 12:20 p. m., a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:40 p. m. on the expiration of the recess, Representative Reece presiding.

Acting Chairman REECE. The committee will come to order, please. Are you ready to proceed, Mr. O'Connell?

Mr. O'CONNELL. I am, sir.

This afternoon I should like to call as our first witness Col. Lawrence Westbrook.

Acting Chairman REECE. Do you solemnly swear that the testimony you are about to give shall be the truth, the whole truth, and nothing but the truth, so help you God?

Colonel WESTBROOK. I do.

TESTIMONY OF COL. LAWRENCE WESTBROOK, WESTBROOK ASSOCIATES, INC., WASHINGTON, D. C.

PLAN FOR CONSTRUCTION OF COOPERATIVE HOUSING WITH PUBLIC AID

Mr. O'CONNELL. Colonel Westbrook, will you please state your name and present address?

Colonel WESTBROOK. Lawrence Westbrook, Washington, D. C.

Mr. O'CONNELL. And what is your occupation?

Colonel WESTBROOK. I am an industrial engineer.

Mr. O'CONNELL. If the committee please, Colonel Westbrook has plans he wishes to present to the committee which in his view will, if adopted, stimulate construction in the middle- and low-cost housing field. If the committee please, I would suggest that we permit Colonel Westbrook to take a little time to develop his story uninterrupted, and when he has completed it we can ask him any questions that occur to us. Is that satisfactory, Colonel?

Colonel WESTBROOK. Yes, sir.

Mr. O'CONNELL. Go ahead.

Colonel WESTBROOK. Previous testimony which has already been submitted to this committee proves very conclusively that despite the amount of money spent by the Government through the U. S. H. A. program, and despite enormous good will on the part of everyone, the average American citizen just simply can't afford to live in a modern house. Since this is so, the real market for housing in this country has been almost completely neglected.

The pattern project which I shall describe to you suggests methods and procedures by which these conditions may be changed. Because it emphasizes a park environment, we call it the park living plan.

This plan involves the coordinated use of public funds already appropriated, of public instrumentalities already created, and of private funds that we all know are seeking investment at this time.

The high lights of this proposed method of operation are as follows:

The plan is based upon the development of completely new communities, either adjacent to or within the corporate limits of cities.

In these communities public work projects either W. P. A. or P. W. A., are used to provide streets, sewers, waterworks, and other public facilities. The values created by these public work projects are utilized in this plan exclusively to reduce the cost of houses in the community to the householders. The covenants in the charter of the limited dividend corporation developing the community, and in the sales contracts that are used, definitely prevent the making of speculative profit by the promoters.

These arrangements, although they deprive such developments of speculative attractions for the entrepreneur, add correspondingly to its soundness as an investment by increasing the equity of the householder and the security of the mortgagee. They also protect the public interest by offering improved living conditions at reasonable prices and by providing real-estate values that are not liable to blighting and tax delinquency.

In order to protect the unearned increment from speculation, the appraised value of the public improvements will be capitalized as common stock in the community. Ownership of this common stock will be limited to the individual householders and will run with title to the houses which they have contracted to purchase.

In addition, preferred stock, holding voting privileges until it is retired, will be sold to private investors to supply the additional equity necessary. Thus the total mortgage debt to be guaranteed by the F. H. A. or to be assumed by any mortgagee, will be held down to less than 75 percent of the appraised value, making the bonds an unusually attractive investment.

By allocating the appraised value of public improvements to the purchasers, the necessity for a down payment is done away with. This feature is of fundamental importance in assuring a wide market and high rate of occupancy. The usual down payment and closing charge on a \$3,000 house amount to about \$450, and this is a sum of money which almost immediately excludes the vast majority of potential purchasers.

A recent study made by the Labor Department shows that more than half the families having incomes of \$1,500 a year and less had no savings of any kind whatever. Forty percent had savings averaging only \$64.75 a family. Yet many of those same families could easily have paid \$30 a month for a house, provided they didn't have to pay 15 months' rent in advance.

Even when a man in that income group is able to raise \$450, either from savings or from borrowings, he very rightly, in my opinion, hesitates to tie it up in a house. His job may change, some emergency may arise and he would be caught without any free capital. Furthermore, the space requirements of the average family change several times during his lifetime. They change with the addition of children, then as the children grow up and go away they change again.

So it is true during the major part of his working life, the average worker needs to be in a position to shift his equity to a different house with changing space requirements, and he needs to be able to get his money out in cash if the necessities of his work force him to move to another town. These advantages are incorporated in this plan.

In the income levels which these houses are proposed to serve, the purchaser is actually a better risk if what cash he has is in his savings bank and if the savings bank owns the bonds against the property

on which his house is located. The method of treating the unearned increment is the essential feature of this plan by which these costs are brought within the reach of potential purchasers. This increment is derived not only from public improvements which are furnished by public-works agencies, but also from the existence of the community itself. This increment may amount, after the community has settled up, to several times the cost of the public improvements, but only the cost of the public improvements is represented in the par value of the stock held by the purchasers.

The remaining increment is not shown in the capital set-up, and the result is that the project is actually undercapitalized. The effect of such undercapitalization is at the very beginning to create a favorable market. At a later date, when the community has been settled up and when any individual desires to dispose of his house, the full market value, including the unearned increment, may be obtained. That is, the stock which goes with the land may bring much more than its par value, to the extent of the value of this unearned increment.

Since the seller can obtain only his cash equity, this surplus will in effect be distributed among all the stockholders, thus becoming an additional asset attached to membership in the community.

In effect, the operation of this plan depends on the fact that while heavy speculative risks demand the prospect of large speculative profits, the elimination of speculative profits will eliminate a large part of the risk and thus make possible a low price and at the same time a sound and conservative return on the investment.

Acting Chairman REECE. I just want to call attention to the fact that the committee has with it today Mr. John Carmody, head of the newly established Public Works, and I want to say that we are very glad indeed to have him with us.

Colonel WESTBROOK. In developing the financial aspects of this plan, I am emphasizing them because they constitute the new procedures which are necessary in order to put it into effect, but in developing this plan we have set up a pattern project and in that pattern project we considered that the physical features of the project, the general convenience and appearance of the community, were as important as the houses themselves.

The cost of the unimproved land was insignificant, and that made it possible to create an environment made to order. The community layout was designed to provide ample park space, protection around the borders against the influence of unsightly developments on other property, and easy access to places of employment and to the centralized facilities of a larger community such as hospitals and other attributes of city life. The arrangement of a belt road extending around the property with spurs extending into a central park gives ample recreational facilities and maximum safety for children at play or on their way to school.

The houses themselves have been designed for the special conditions of that locality and of the family life at the income levels which they are intended to serve. For the occupants of these houses, domestic servants are out of the question and in many cases the housewife supplements the family income by full-time or part-time employment. The rooms are, therefore, relatively small, being functionally destined to reduce housework and household expenses to a minimum.

Although standard dimensions are maintained in order to permit the use of quantity-production methods, various arrangements of the rooms, of colors, and the orientation of the houses on the lots will assure that the development will not have a monotonous or institutional appearance.

The initial construction of 120 houses out of a proposed total of 900 was expected in this project to furnish accurate information as to the relative demand for houses of different size and cost.

In planning the financial and physical features of this pattern project, we have regarded the development as primarily a demonstration. By its success we hope to prove that closely coordinated planning of public work and private enterprise can be obtained. By such close coordination, financial economies are possible, through which the prices of houses may be so reduced and the terms made so advantageous that the 80 percent of our population hitherto precluded from buying new homes may safely enter the market.

By the widespread use of this plan, public works conducted for unemployment relief may be used directly to extend the field of private enterprise and capital. No new appropriation of public funds is needed, no new legislation is necessary, no departure from the profit motive is called for. We simply need to further coordinate the services already being supplied by existing agencies.

Now, with the committee's indulgence, I would like to refer to this chart which I tried to make big enough for you to see.¹ I don't know whether I did or not. I have outlined on this chart what I considered to be salient features of this plan, and as I explain them to the committee, I will be very happy to have you ask me any questions that any one of those features may cause you to ask.

Mr. O'CONNELL. Before referring to the chart, I should like to ask just a couple of general questions to see whether I understand exactly the sort of situation that is involved here. As I understand it, this involves essentially subdivision developments of presently unimproved properties in or adjacent to suburban communities.

Colonel WESTBROOK. That is correct.

Mr. O'CONNELL. And it involves the use of public works. I take it you would think generally of a W. P. A. project aided by a sponsor's contribution.

Colonel WESTBROOK. That is right.

Mr. O'CONNELL. In building the roads, sewers, water works, and other public improvements that would necessarily go with such a development, and that as a result of those public improvements, the land, the raw land, so to speak, would be substantially increased in value, sufficiently increased in value so that the ownership of that land would represent a substantial equity or more than a sufficient amount together with an F. H. A. 80-percent mortgage to finance the construction of the project.

Colonel WESTBROOK. Of course it is necessary that some risk capital be employed, but the major part of the equity, I believe, in this particular project, is about the same private capital would have to put up and is about half of the original capital, I mean of the equity. The remaining equity would be represented by this addition to the value of the raw land.

¹ Subsequently entered as "Exhibit No. 924," *infra*, p. 5345.

Mr. O'CONNELL. And I take it you feel at least in part that this particular device is justified because the group, the income level which we are trying to reach, is not under present circumstances in a position to put up the 20-percent or 10-percent equity that would be required under conventional methods of financing. Is that correct?

Colonel WESTBROOK. That is entirely correct.

Mr. DOBEY. May I ask one question? How will the increment in value be transferred to the home builders rather than to the existing proper owners of the property that is developed?

Colonel WESTBROOK. The plan contemplates the formation of a limited dividend corporation which will issue both preferred and common stock. The value of the public works will constitute the value of the common stock and limitations of the charter will be such that the common stock can be issued only to people who occupy those homes, who have entered into sales contracts.

Mr. DOBEY. The property would be acquired by the corporation before the development occurred.

Colonel WESTBROOK. That is correct.

Mr. O'CONNELL. And the preferred stock will represent the risk capital and the other equity put into the properties by the entrepreneur, so to speak, the promoters.

Colonel WESTBROOK. That is right.

Mr. O'CONNELL. And the common-stock ownership will in effect run with the land, a certain amount of common stock being attributed to each individual parcel of land in the tract.

Colonel WESTBROOK. That is correct. The sales contract provides that the common stock may not be transferred except with the sales contract. It also provides that if a purchaser desires to sell out he must sell to the corporation.

Mr. O'CONNELL. The sales contract is the contract between the limited-dividend corporation and the prospective home owner, and it is a contract by which he over a period of years acquires title to the property.

Colonel WESTBROOK. That is right.

Mr. O'CONNELL. And a share of stock goes along with the sales contract, but stays with the land.

Colonel WESTBROOK. That is correct, stays with the land. When he sells out, if the value is there, he gets what he puts into it. He can't take any value away from the community when he leaves there.

Mr. O'CONNELL. You mean if after a period of years an individual home owner or prospective home owner desires to liquidate his equity which has become substantial by that time, he can only receive from the corporation an amount equal to the equity which he has put into the property.

Colonel WESTBROOK. Yes; that part of his carrying charges which are applied directly to amortization.

Mr. O'CONNELL. And the balance of increment, assuming that the property has in fact appreciated in value, in effect remains available for all of the owners of the tract?

Colonel WESTBROOK. It becomes the property of the corporation and, of course, the common-stock holders own the corporation subject to the preferred stock and mortgages that are on it.

Mr. O'CONNELL. What is the return of the owners of preferred stock who have the risk of the capital?

Colonel WESTBROOK. Five percent.

Mr. O'CONNELL. Five percent; and when they have had a return to them of the amount of their investment with 5 percent on the investment over the period, their stock is retired?

Colonel WESTBROOK. Yes; a provision is made in the carrying charges to retire the preferred stock at the same rate that the mortgage is retired sooner; however, it may be retired; it may be accelerated if the people who live in these houses desire to accelerate payment.

Mr. O'CONNELL. Over what period of time would a respective home owner be expected to acquire title?

Colonel WESTBROOK. Nineteen and a half years.

Mr. O'CONNELL. And the financing as far as the mortgage part is concerned, would be presumably in F. H. A. mortgages running to the financial agent and insured by F. H. A?

Colonel WESTBROOK. That is correct.

Mr. O'CONNELL. I think you might proceed.

(The chart referred to was marked "Exhibit No. 924" and appears on p. 5346.)

Acting Chairman REECE. Mr. Carmody, would you care to ask any questions? If so, please feel free to do so at any time.

Mr. CARMODY. Not at this time. I would defer any questions but I will have some questions later.

Colonel WESTBROOK. You have asked such searching questions that there isn't much more for me to say on this chart up here.

I have some documents here. Shall I put them in the record one by one, or put them in later?

Mr. O'CONNELL. Do you expect to refer to them in detail and discuss them?

Colonel WESTBROOK. I would invite the attention of the committee to the fact that in these documents there is a reproduction of this chart. In case it is not clear, or you can't see it clearly, perhaps you might refer to it.

Mr. O'CONNELL. I think as you discuss each one, if you will identify each chart by name as you discuss them then we will offer them for the record.

Acting Chairman REECE. And they may be received as they are identified and presented.

Colonel WESTBROOK. Up here we point out that the purpose of this plan is to lower the basic housing costs and the down payments—as a matter of fact, we practically eliminate the down payments—and to stabilize occupancy, and at the same time to reduce the investment risk, both to the home owners and to the mortgagees.

I have endeavored to set out on this chart the advantages and the salient points that the plan is proposed to make available. You will note here that it is aimed at that famous group who have incomes between 1,000 and 2,000 dollars. It is directly aimed at that group of people.

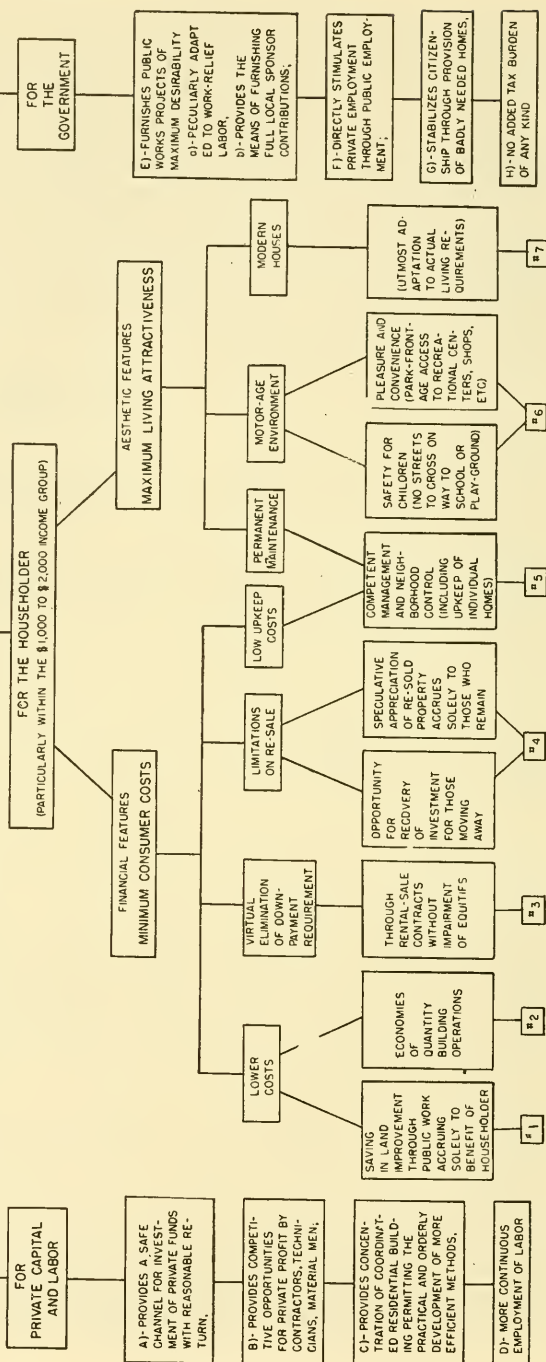
Here is a discussion of the financial features, the consumer costs. As I have already brought out in answer to Mr. O'Connell's question, a lower cost is primarily impossible without the utilization of the value of public work. That will amount in various communities to anywhere from 10 to 30 percent, depending upon the extent of the public work. In this particular project it is very large, because there is a park and a lot of recreational features in connection with it.

EXHIBIT No. 924

THE PARK-LIVING PLAN

(TO LOWER BASIC HOUSING COSTS AND DOWN-PAYMENTS,
AND TO STABILIZE OCCUPANCY, TOGETHER WITH THE
REDUCTION OF INVESTMENT RISKS TO BOTH HOME-OWNERS
AND MORTGAGEES THROUGH THE USE OF PUBLIC WORKS
IN CONJUNCTION WITH PRIVATE ENTERPRISE)

ADVANTAGES



There is another point that permits lower cost—there is nothing peculiar about that—that is involved in this project: The economies that result from quantity operations. Obviously this must be so. Being an entire community, it requires the building of a comparatively large number of living units.

Mr. CARMODY. Have they been very great up to this time, Lawrence, where there has been quantity building?

Colonel WESTBROOK. Very few to the single housing—very few single-family houses, I understand, have been constructed by an over-riding corporation which did everything; and it seems to us, from our study of this situation, that is one of the reasons we have such great unit costs, because the economies that we do get, that we have learned in America so well to apply to mass production, have not been possible, and they are not possible except in the development of an entire community.

Mr. CARMODY. Is Buckingham a good example of what can be done? I am not familiar with that in detail, but I have a general idea of what has been accomplished.

Colonel WESTBROOK. I think it probably is, except I understand Buckingham units are not single-standing houses. But I think a good description of this project would be to describe it as a large apartment development on a horizontal plane instead of a vertical plane. That, I think, is a good description of it.

By having that, of course, it is possible to do a good deal of prefabrication. We have done it under F. E. R. A. Under my direction a number of houses were built where we had our crews organized, the foundation crew and the floor crew, and so on; we had our material prepared at a central point, and it was loaded on a truck and unloaded at the site, and really very extensive savings were made possible by that method.

Of course, as I say, that is not peculiar to this, but the fact that you have a development of this kind makes it necessary that you do engage in these large-scale operations, and makes possible, I think, the use of the mass-production methods.

The virtual elimination of the down payment is an important feature. In this pattern project we provide that 2 months' carrying charges be made in advance, not as a down payment but just so if the purchaser should leave, there would be enough cash there to put the house back in good condition, and we apply those two down payments as the last payments so that he keeps up to date all the time on them. But I think not only in my little statement, but other witnesses here before this committee have indicated the great importance of doing something about this down payment. People simply do not have this money. They don't have it, and if they did have it in that income group, there is a serious question as to whether it is an economic thing for them to make an investment of it in a house which they may have to leave on short notice; and not being adept at selling houses, they might have to sell at a real sacrifice.

Mr. CARMODY. Lawrence, under normal house-building construction as now carried on, what percentage of the cost is likely to be included into what might be called all finance charges of various sorts—brokerage fees and second mortgage and handling of second mortgages, and so forth, that whole range of figures known as financing.

Colonel WESTBROOK. The so-called closing charges amount to about 5 percent and of course there are a lot of other charges. I don't have them in front of me.

There are too many people engaged in selling one man one house, too many folks have to be paid out of that price. If it is possible to get all of those services performed by a corporation which has its attorney, which has its architect, of course it can be done a great deal more economically.

Mr. CARMODY. You didn't include the architectural fee in that 5 percent, I hope.

Colonel WESTBROOK. Oh, to be sure not.

Mr. CARMODY. Sure not?

Colonel WESTBROOK. The rental sales contract which I explained in my statement provides that the purchaser obligates himself to sell back to the corporation in the event he wants to leave. If the house brings a greater price than his equity entitles him to, that surplus price accrues to the corporation. All of the people who live in the community own the common stock of the corporation, including the fellow who bought the house. Actually he is not able under this provision to take away this unearned increment. It must stay in the community. That is tremendously important. I think the fact that the unearned increment is so often taken away by people who do not live in the community, by the speculative element, is responsible for most of the blighting, most of the serious conditions that we have in our real-estate development in this country. So, I wanted to emphasize the importance of that.

I see that I have jumped over here. I covered this point here on opportunity for recovery of investment for those moving away, by the statement I just made.

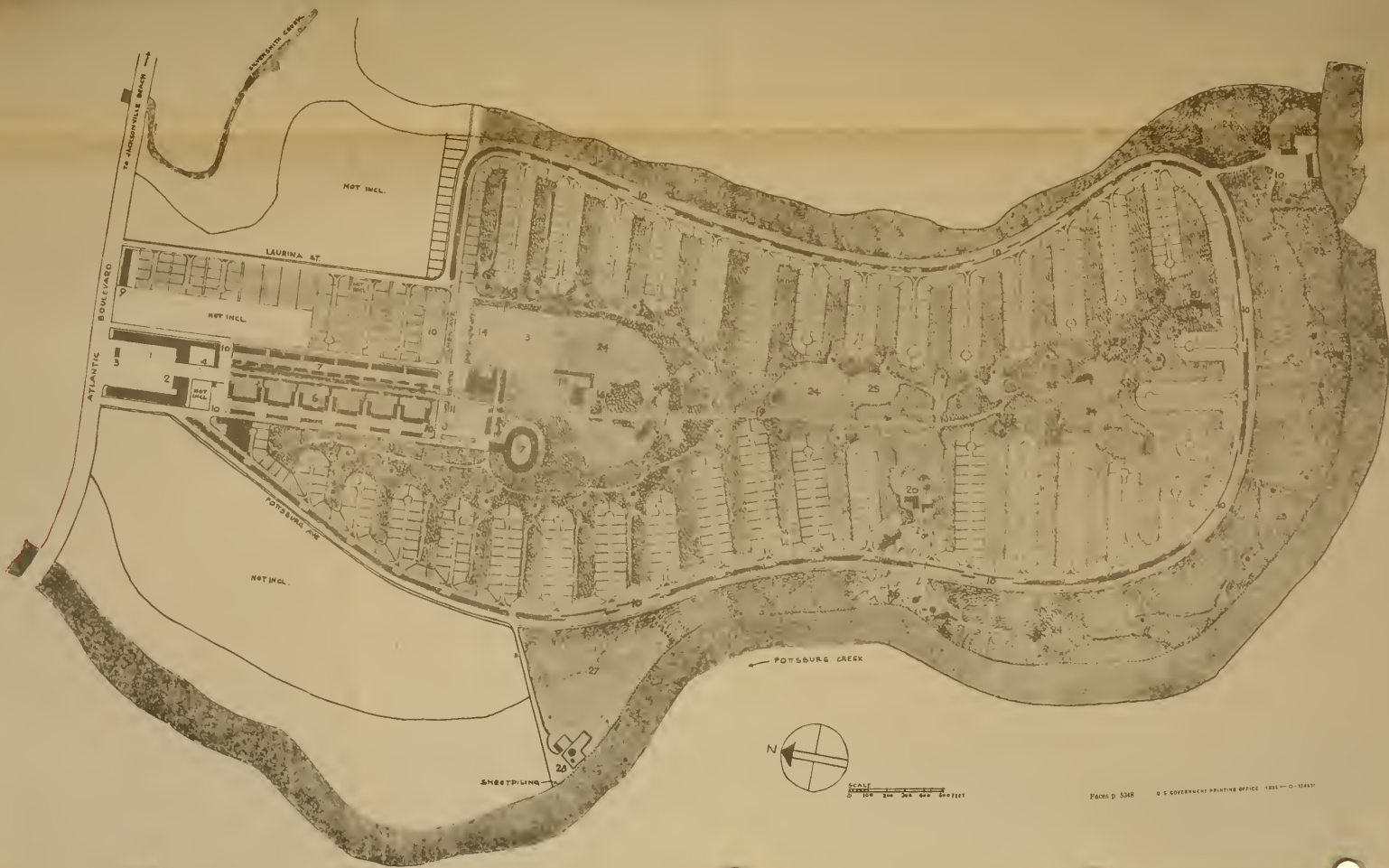
The claim for low upkeep cost is based on the assumption that you can take care of 120 houses more cheaply per house than you can take care of one house. If you have an organization set up to take care of a group of houses, it can be done not only more cheaply but more effectively than can be done if you just take care of one house.

That, of course, ties in with the point of competent management and neighborhood control.

We come now to a discussion of the esthetic features of this particular pattern project. They are available in any new project because, as I said, you can make the environment to order in a completely new development. In this particular project, however, they are quite interesting; and if the committee would be interested I would be glad to show you just what I mean by making an environment to order.¹

Colonel WESTBROOK. This is a plot of ground that in developing this pattern project we obtained down in Florida. It is about a mile and a half this way [indicating width on chart], and it is about three-quarters of a mile that way [indicating "up and down" on chart]. This is a boulevard, the main boulevard between the city of Jacksonville and the beach, about a mile from the city limits, 12 miles from the beach. This line here, this double red line, is a two-way belt road, going all the way around the property. This, here, is an interior park, which is equipped with recreational features and which, when the development is completed, will contain both primary and secondary schools.

¹ "Exhibit No. 926," introduced *infra*, p. 5357.



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¹ "Exhibit

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ROUND SHELTER
SQUARE SHELTER
PICNIC STOVES WITH
3 ADJACENT TABLES & 6 BENCHES
WADING POOL
SAND LOT
BICYCLE PATH
TENNIS COURT
BADMINTON COURT (56' x 27' 44")
CROCKET FIELD 30' x 40'
ROCK GARDEN
PERGOLA
PARKING SPACE (NO. OF CARS)

FIRST SECTION OF DEVELOPMENT III UNITS
PARK LIVING
DUVAL COUNTY FLORIDA

RICHARD J. NEUTRA, A. I. A. ARCHITECT
2348 S. LVER LAKE BOULEVARD
LOS ANGELES, CAL. PHONE NO. 8194

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Now, these little red lines here are cul-de-sac roads, spurs that extend up into the interior of the park. The lots face the park. Every house in this development faces not a street but faces the park, so that the children, when they go to play or go to school, are not required to cross any road carrying motor-driven traffic.

I have a more detailed plan here I will show you in a minute that makes clear just what these various facilities are.¹ They are also interesting.

That is the entire development that is contemplated. This, here, is the 120 houses that we now have applied for a loan for to F. H. A. and that the county has applied to W. P. A. for public works project. It is just a section of the other development.

In here the houses, you see, as I stated—each one faces the park. They are served by this motor road that comes up here with a circle, and inside here are various things; for instance, these are round shelters, and square shelters. There are in this entire development of 120 houses, about 50 picnic ovens. They are very cheap, don't take much to make, nearly all labor, but it is possible for people who live in a place like that to put their picnic food in a basket and walk about 75 yards and have a picnic. I don't mean to paint this thing too rosy, but these things are possible at very little expense if you use this type of development.

There are sand lots here, wading pools for little children, and the development lends itself to the common employment of nursing service, and a good many of these people—the women in this income group—work, themselves, and by living in a community of this nature, they would be able to support a common nursery school or at least someone to look after their children while they are at work or away on their own recreation.

The houses themselves—I don't have any diagrams of them, but they were designed in this case by Richard Neutra, and they are streamlined houses. The principle that these houses were designed on is this—that in these days and times people are not able to take care of large rooms. They want everything as modern as possible. They don't care if it is small. The point is that the cabin on an ocean liner is luxurious living even though it is small, and it is possible by economizing on space to afford very modern household aids to house-keeping, electrical facilities, and things of that kind.

Now, I have spoken of the advantages here to the householder. I would like to speak of the advantages of this plan now for capital and labor.

I say here, that this plan provides a safe channel for investment of private funds with reasonable return.

This table here shows comparisons of equities and costs under the conventional method that is now being used for financing most of the houses that are being insured by the F. H. A.

(The table referred to was marked "Exhibit No. 925" and is included in the appendix on p. 5563.)

Colonel WESTBROOK. Under this method the house in each case is appraised at \$3,170. Under section 203 of the Housing Act, the mortgage would be \$2,853. I think it has to end in exact numbers, but that would be 10 percent. Under this plan the mortgage would be only \$2,260. The term of this (\$2,853) is 20 years; and the term of that one (\$2,260), nineteen and a half.

¹ "Exhibit No. 927." Entered *infra*, p. 5357.

The equity in the property for the protection of the mortgagee, and of course where it is insured by F. H. A. for the protection of the Government, in this case (conventional method) was \$317; and in this case (Park-Living method), \$910, or 10 percent against 28.7 percent. The down payment we referred to, in this case (conventional) was \$475. That includes the closing charges. In this case (Park-Living) the 2 months' rent in advance is \$48. The reason that is not \$50 is that in this particular project there is a dollar a month water charge that is not reflected here. The monthly cost under the conventional method figures \$30.30; the same house under the Park-Living method figures \$25.

Now, of course, that is the essence of the whole plan, that those savings are effected and that the equities of the mortgages and, of course, the protection afforded to the Government are so much greater than they are in the conventional method that is now being used, and that is so—not solely but largely—by reason of the fact that we are able to capitalize and utilize the Public Works projects. They have to be accomplished anyhow somewhere; unemployed people need work, and the idea here is that that work be concentrated on a project of this nature rather than on other projects which are highly desirable, of course, but a large number of people could more advantageously be employed in this type of public works.

Mr. O'CONNELL. Colonel Westbrook, how much of that \$910 equity item is attributed to the increment value caused by the Public Works?

Colonel WESTBROOK. In this particular project it is, I think, \$400. I don't have the exact figures, but I will supply them for the record.

Mr. O'CONNELL. From whence comes the balance of the equity?

Colonel WESTBROOK. That is the private capital, the private investment; \$400 is the figure, Mr. O'Connell. It amounts to a little less than half.

Acting Chairman REECE. Whose investment?

Colonel WESTBROOK. Beg pardon?

Acting Chairman REECE. Whose investment?

Colonel WESTBROOK. Mr. O'Connell asked where the \$910 equity came from, and I said that part of it came from the utilization of the values accruing from the Public Works, \$400. The remainder is the risk capital that the private entrepreneurs put into the project in its development.

Mr. CHAWNER. Do you mean the people who supply the land, for one, those who buy the preferred stock for the other? Those two interests?

Colonel WESTBROOK. That is right.

Mr. CHAWNER. Plus the public improvements, makes the \$910.

Colonel WESTBROOK. That is right; that is correct.

We have already discussed this feature here that provides competitive opportunities. Except for the fact that no speculative profit can be made out of a development of this kind, it offers the same opportunities for profit that any real-estate development offers. There is no reason why the architects and the material suppliers and everybody concerned in the actual construction of the project shouldn't be paid as much for his services in the development of a project of this kind as in any other project. As far as the profit is concerned, I think probably there might be more profit, because I believe better values can be produced by the large-scale development than there can by the single-family.

Mr. O'CONNELL. Were it not for the elimination of the so-called speculative profit which the average conventional entrepreneur or developer of a subdivision gets, you wouldn't have any doubt that his would not be a proper vehicle for the expenditure of Federal funds?

Colonel WESTBROOK. No; it couldn't be done. It could not be done either as a matter of right or a matter of regulation or law.

Mr. O'CONNELL. In other words, if this were the average subdivision development there would be no social justification or, in fact, no legal justification, for the expenditure of Federal funds to build the public works to which you refer.

Colonel WESTBROOK. That is entirely correct. Of course, I may point out that it is impossible to do any kind of worth while public work without benefiting some private interest. If the W. P. A. paves a street in any town, the people who happen to live on that street are preferential beneficiaries as a result of that paving. This project more nearly approaches the ideal because the public work is divided up equably among all the people who live in the community, whereas if the W. P. A. paves a street in a town only the people who are fortunate enough or unfortunate enough to live on that street are the preferential beneficiaries.

Mr. O'CONNELL. Does the increment in value that is attributed to the public works equal, exceed, or is it less than the actual cost of the public works?

Colonel WESTBROOK. Well, it would depend upon the valuation assigned by the F. H. A. appraisers. That is all you can use in your capital structure because they won't let you use any more than they say it is worth. It might cost twice as much to do these things as the F. H. A. would say they added to the value of the property, or it might be that the F. H. A. would say that it would add more to the value of the property than the actual cost. That is a matter of appraisal.

Mr. O'CONNELL. How is the value of the unimproved land determined for purposes of determining the amount of return that the original owner of the subdivided property gets?

Colonel WESTBROOK. The F. H. A. appraises the raw land also.

Mr. O'CONNELL. And the basis of their appraisal or the amount they would appraise that raw land at would be the basis upon which the original owner or the corporation could get 5 percent as a maximum?

Colonel WESTBROOK. That is correct.

Mr. CHAWNER. Colonel Westbrook, in discussing this, did you list types of improvements which you had in mind other than water supply, sewers, and streets? You mentioned schools. Did you have in mind that application would be made for a project which would provide for schools, or how would they be supplied?

Colonel WESTBROOK. That would be handled in the usual manner. If we get enough people here to justify first a grammar school or secondary school, this is part of a school district and the application for that school would be made in the usual manner by the school district in the particular case.

Mr. CHAWNER. You mentioned this particular place near Jacksonville. Have you proceeded with a project of this type to the point of consulting with the county authorities as to what they would willingly supply in the way of facilities for a project of this character?

Colonel WESTBROOK. Yes, the status of that project today is this, that the land was under option, in fact it has been purchased by the private people who are going to put up the risk capital. The application has been filed for the loan to the F. H. A. The Duval County commissioners have filed an application for the public works features with W. P. A., and the architects have prepared the plan and specifications and the contractors have submitted their estimates, so the figures I am giving you are actual figures. The status of the W. P. A. application I am informed, just yesterday, is that they are prepared to approve it as soon as Colonel Harrington gets back, that they think the legal requirements have been met, and I understand that similar action is contemplated by F. H. A., so we have as nearly as fait accompli as we could get.

Mr. O'CONNELL. What are the public works that would be included in the W. P. A. project?

Colonel WESTBROOK. For this 120 houses they are the streets and the sewer system the water works, and the parks and the recreational facilities within the parks.

Mr. O'CONNELL. Would it be a complete, new sewer system and water system for this development?

Colonel WESTBROOK. Yes; it would be completely new. They have artesian water available down there so there would be an artesian well, two of them in fact, and the sewer system will be a sewerage system with a modified Imhoff disposal plant. Parks would be, as I said, equipped with these various recreation things.

Mr. O'CONNELL. What is the basis of contribution between the county and W. P. A.?

Colonel WESTBROOK. Well, it runs almost 25 percent. The sponsor's contribution is almost exactly 25 percent.

Mr. O'CONNELL. Does the sponsor's contribution come directly from the county or supplied by the county corporation?

Colonel WESTBROOK. The W. P. A. regulation requires that the county obligate itself to supply the contributions. In this situation, because in Florida houses under \$5,000 are completely exempt from all taxes, of course the county would have no tax revenue, so the entrepreneurs are guaranteeing, have already supplied, the county commissioners with sufficient guaranty. Of course, the W. P. A. does not go behind the county guaranties. That is a responsible public body, but they require such a guaranty. They further require that the county guarantee that in any event this project would be completed once it is started.

Mr. O'CONNELL. These houses will be completely tax-exempt from real-estate taxes?

Colonel WESTBROOK. Yes, they will, except there is a very slight exception of that to pay the interest and sinking funds on bonds which were issued prior to the adoption of the tax exemption law.

Mr. O'CONNELL. The fact that this is a multiple-unit development wouldn't prevent the exemption?

Colonel WESTBROOK. No; not at all. The contract for sale under the Florida law is the same thing as having title for exemption purposes.

Dr. LUBIN. Colonel, those figures you have given us on costs and equities show that under the conventional method you get \$30.30 as opposed to your method of \$25.¹ Now, when you talk about the con-

¹ See "Exhibit No. 925," appendix, p. 5563.

ventional method, do you mean as applied to Duval County where you would have no taxes?

Colonel WESTBROOK. Yes; they are entirely comparable figures. If we had \$5 taxes, say, a month, you would just add \$5 to each side over there and it wouldn't make any difference.

Dr. LUBIN. In other words, you have not included in your conventional method any tax charge.

Colonel WESTBROOK. No, no. As a matter of fact, a house like this, having normal taxation, would be \$35 under the conventional method of financing.

Mr. CHAWNER. That seems almost too good to be true. The whole community would be supplied with schools and public improvements and not have to pay any taxes for them.

Colonel WESTBROOK. I just don't know where they get their money down there in Florida, but that is the way they do it.

I also referred a minute ago, when Mr. Carmody brought out the benefits of coordinated residential building, to the fact that that is extremely important. I don't think that the building industry in Great Britain, which I have studied very closely, ever got anywhere until they started to build houses, complete residential communities, in large quantities, and they set up corporations over there which could do every single thing that was necessary to be done to build a building. In other words, they had a complete assembly plant. It compares with a custom-made automobile, a Ford or General Motors automobile. So it is extremely important that the devices, the corporate devices that we use for the actual construction of these single houses, be large enough to represent the advantage of quantity production methods.

It is very important for labor because labor can go from house to house in a development of this sort with minimum loss of time. The various classifications of labor will work on one house, and they will immediately move to another one. We know that because it truly works out that way. It not only cuts cost, but it gives a much greater gross return to labor, because they are employed continuously.

This feature over here, the advantage for the Government, I think likewise important, as well as the advantages for the householder and for private capital.¹ As far as public works are concerned, projects of this nature are peculiarly adapted to the use of the unemployed, most of whom are unskilled. In the W. P. A. we know that our roads and our sewer systems generally are the best projects we have, because we can use a greater percentage of unskilled labor in the construction of that type of project.

Again, which is also important, a project of this nature provides a dependable means of furnishing sponsors' contributions.

I don't know whether the members of this committee are familiar with the statements made by Mr. Paul Betters. I admit that they may be a little bit prejudiced, but Mr. Betters says that the mayors that belong to his association are more concerned about the inability of their cities to provide sponsors' contributions that are necessary to carry on public works than almost any other single thing except that they want still more money for relief.

A great deal of the criticism that is unjustly heaped on W. P. A. projects is because they have had to be overmanned. The local people could not put up enough dollars to provide the sponsors' contributions, yet they were obligated to provide work for so many people. So they

¹ See "Exhibit No. 924," *supra*, p. 5346.

just worked more people than they needed to on many projects. So sponsors' contributions are extremely important and growing more so as the resources of the municipalities in the country become less and less for matters of this kind.

A project of this nature furnishes those sponsors' contributions and furnishes them fully.

The next, and to this committee I should judge one of the most important features of this plan, is that it provides that the public works expenditures directly stimulate private investment and private employment. As a rule, I would say that \$1 spent in the provision of public facilities would immediately and directly result in the expenditure of from three to four dollars of private money in private construction providing private employment. So it is something that the Government can do without using up any more tax money, to put these idle dollars that the committee has been told about to work and the dollars are just as eager to go to work, I am sure, as the people are, if they can find something that will give them return.

This is a little trite, I think "Stabilizes citizenship through the provision of badly needed homes," but it is not trite to people who really realize how extremely difficult it is for the average man—not just the low income fellow—the average income earner in this country to get a decent house to live in. This does provide him a decent house, not in some apartment, not in a flat, but a house where he has access to the outside, where he can have his own garden if he wants to.

Then the final thing is no added tax burden. Not only is there no added tax burden, but I say advisedly that the use of this plan as compared with the existing method of financing houses will save the Government money in the long run because of the greater equities that are furnished.

I believe that completes my statement, Mr. Chairman.

MR. O'CONNELL. Colonel Westbrook, I don't know that we could go into detail into these elements of the plan, but I take it that you are convinced that your plan makes adequate provision to protect against the realization of what we have referred to as a speculative profit on the part of the promoters.

Colonel WESTBROOK. I submitted some long time ago to the W. P. A. the proposed charter and the proposed sales contract, and of course I think the covenants in these are good, were worked up by some very good lawyers, the best that we could get. If they don't meet all of these requirements, why, it is not particularly difficult to write the necessary covenants into the charter and into the sales contract so that these provisions will be met. I don't doubt that improvement will be made as the plan is developed further.

MR. O'CONNELL. I don't think it is the function of this committee, but I think it is perfectly clear in your mind the plan is only proper if the plan is so worked out that the speculative profit element usually present in subdivision developments is eliminated. Isn't that right?

Colonel WESTBROOK. That is correct. That applies to my mind, my philosophy, my own thinking, not only to the protection from the utilization of the value of public work but also to the protection from speculation occasioned by the settlement of the community itself which to me has been both a social and economic detriment to the real estate developments in this country ever since we started doing it.

MR. O'CONNELL. When the preferred stock has been retired under your plan, what we have left is a corporate shell of common stock

ownership represented by the then occupants of the houses. Haven't we at that point substantially created what is a municipal corporation?

Colonel WESTBROOK. Yes; I think that is what would happen. Of course some people have asked me what are they going to do after this amortization is completed in 27½ years. That is a good question, but 27½ years is a long time, and I just imagine that a great many of the problems we have now will be completely settled by then. At least we don't have to worry so much about 27½ years from now, although I am sure it could be provided that some disposition would be made of this property or of the corporation at the expiration of that time.

Mr. O'CONNELL. Another thing that is inherent in your plan as I understand it is the assumption that the Federal Government is going to be required to make expenditures for relief purposes in these areas during the coming year, and that it is your view that it would be better to channelize those expenditures into an area where they would stimulate other construction activity.

Colonel WESTBROOK. Yes, sir.

Mr. O'CONNELL. Has it occurred to you that there might be some resistance in given communities to using these funds to develop new presently undeveloped areas as against spending the money to make improvements on already developed property, streets, sewer projects, and so forth?

Colonel WESTBROOK. There is no doubt about it in the world. Whenever Mr. Ford builds a new automobile, every other Ford automobile in the country becomes less valuable. You just can't get away from that.

Mr. O'CONNELL. You think there would be opposition but it should be disregarded.

Colonel WESTBROOK. I think there would, but I think it is immaterial and trivial, because if we have to say that we won't build any new things because we render old things obsolete, then we just stop.

Mr. O'CONNELL. I have no further questions.

Acting Chairman REECE. Are there any other questions?

Dr. LUBIN. Colonel Westbrook, in this house you have for \$3,170, the equity represented is 28.7 percent, or the reverse of that, the mortgage would represent 81.3 percent.¹

Colonel WESTBROOK. 71.3.

Dr. LUBIN. Yes; 71.3. Now that is 71.3 percent of the appraised value of the property?

Colonel WESTBROOK. That is correct; yes.

Dr. LUBIN. How much of that \$3,170 is actually invested?

Colonel WESTBROOK. In this project it is all invested.

Dr. LUBIN. Let me put it another way. As you said, a certain percentage of that, some \$400, would be Government investment in the property.

Colonel WESTBROOK. That is correct.

Dr. LUBIN. So that leaves a balance of about \$510.

Colonel WESTBROOK. That is correct; yes.

Dr. LUBIN. How does that compare with the actual investment in properties that have been mortgaged in the past by the F. H. A.?

¹ See "Exhibit No. 925," appendix, p. 5563.

Colonel WESTBROOK. I don't know. It is my understanding that the F. H. A. appraisers under 203 appraise the property and lend the householder, not the entrepreneur, 90 percent of the appraised value. I don't know what their basis of appraisal is but I assume it is based on the going market price. You asked the actual cost and I have no definite knowledge about that, except from some testimony which was offered to this committee here by Smith & Dawson.¹ They gave a break-down of the cost of houses that they were selling in the neighborhood of Chicago, and according to their statement, the houses cost them, less their advertising expense, \$3,925, including the land, and the mortgage was \$4,300 to the householder.¹ I presume they sold this property to some householder and he made the down payment and that served as equity.

Mr. CARMODY. Considering your statement that no additional legislation is necessary to put this plan into effect, why are you here? I wonder why you come to the committee.

Colonel WESTBROOK. I came before the committee, Mr. Carmody, in order that the plan might be subjected to critical analysis, that it might bring out these questions such as you gentlemen have asked me today, and also that the idea might be promoted. I would like to see it given as much publicity as possible.

Mr. CARMODY. Assuming acceptance, how rapidly can it be put into effect, and in what volume?

Colonel WESTBROOK. In my opinion, in very extensive volume. I know that this plan would be applicable to a large part of even the very small towns in the United States where living conditions are perfectly terrible. I know that because I have checked it. I have done some figuring on a job down in West Memphis, Tenn., which is a very rapidly growing little town. Down there most of the people in that town are laborers and they have to pay fourteen or fifteen dollars a month for what we call a shotgun house, that is a house with two or three rooms—a three-barrel shotgun if it has three rooms and a double-barreled shotgun if it has two rooms—without any water-works or sanitary facilities or anything else. I know we can build that kind of a house for \$15 a month.

Mr. CARMODY. What is likely to be your principal sponsorship? What character of sponsorship are you likely to get?

Colonel WESTBROOK. It will be people who want to make money out of selling material, selling land—the land thing is not so very important because the cost of raw land is small anyhow, but the contractors and architects and those fellows would like to get this thing started because it means business to them.

Mr. CARMODY. I have felt for some time that the materials manufacturers—

Colonel WESTBROOK (interposing). Indeed.

Mr. CARMODY. Might well form a limited-dividend corporation and might do just this and perhaps contractors, who rarely put anything back into a community after they work in it—perhaps they would be interested.

Colonel WESTBROOK. That is right. Anybody who makes a legitimate profit out of the operation, should be just as interested as an automobile manufacturer would be interested in expanding the market for automobiles.

¹ See "Exhibit No. 854," appendix, p. 5480.

Mr. CARMODY. Can't they stimulate the use of local capital from the local banks in enterprises of this kind, perhaps more directly than the Government or any other agency?

Colonel WESTBROOK. Perhaps they can. I think it needs the kick-off from the Government. If you study the trend of housing in Great Britain, you find the Government started it off. You will find most of the houses built in the last 3 or 4 years, when they built more than at any other time, have been built without much Government service. Our great need is an organized housing industry.

Mr. CARMODY. They got it started with our money. We lent them a terrific amount of money to rehouse Britain and rehouse Germany, both, at the very time when we were talking about the need of changing our slum systems.

Colonel WESTBROOK. I think that is correct.

Mr. CARMODY. \$200,000,000,000.

Colonel WESTBROOK. I think that is correct.

Acting Chairman REECE. Are there any further questions? Thank you very kindly, Colonel, for your presentation, which I am sure the committee has found interesting.

Colonel WESTBROOK. Thank you very much for the opportunity, sir.

Mr. O'CONNELL. I should like to have the exhibits which Colonel Westbrook used received in evidence.

Acting Chairman REECE. They will be so received.

(The charts referred to were marked "Exhibits Nos. 926, 927" and appear facing pp. 5348 and 5349. The schedule was marked "Exhibit No. 928" and is included in the appendix on p. 5564.)

(The witness, Colonel Westbrook, was excused.)

Mr. O'CONNELL. If the committee please, I would like to call another witness, a practical builder, and he feels this would be of interest to the committee. I will call Arthur W. Binns.

Acting Chairman REECE. Do you solemnly swear that the testimony which you are about to give in this proceeding will be the truth, the whole truth, and nothing but the truth, so help you God?

Mr. BINNS. I do.

TESTIMONY OF ARTHUR W. BINNS, PRESIDENT, A. W. BINNS, INC., ENGINEER AND BUILDER, PHILADELPHIA, PA.

REHABILITATION OF SLUM AREAS WITH PRIVATE CAPITAL

Mr. O'CONNELL. Will you please give your name and address and business occupation for the record?

Mr. BINNS. Arthur W. Binns, 2206 Chestnut Street, Philadelphia.

Mr. O'CONNELL. What is your business, Mr. Binns?

Mr. BINNS. Real estate and building.

Mr. O'CONNELL. What has been your experience in that field?

Mr. BINNS. Fifteen—I was a contracting builder from about 1915 to 1930; in 1930 I organized my own business, real estate, building, and real-estate management, and have been in that business ever since.

Mr. O'CONNELL. And you expect to talk to the committee about your recent experience and your present practice of acquiring and rehabilitating depreciated properties?

Mr. BINNS. Yes, sir.

Mr. O'CONNELL. For rental purposes.

Mr. BINNS. Yes, sir.

Mr. O'CONNELL. Now, if the committee has no objection, I would suggest you proceed and tell the committee generally, precisely as you can, what your experience is.

Mr. BINNS. Yes. I will be extremely brief in what I have to say. I have only one thing to say and that is to recount an actual experience, to tell the history of an experiment. I will not take any time at all to talk about the vast field of low-income housing. That you know better than I do. Suffice to say it is the greatest field that there is, but I want to talk about the things that we have done in the last 10 years with private capital for profit, meeting this low-income housing field.

For the past 10 years in the practice of the real-estate business in Philadelphia, I have observed the great need for clean, decent housing at low rent. There is, simultaneously, we have observed, a vast supply of depreciated real estate which could be purchased at very low cost, and, owing to the successive financial readjustments of the last few years, could be had at a fraction of its original cost. It seemed to me that there existed the demand, the supply, and the opportunity, for a useful field of endeavor.

Starting from very small beginnings, I progressively purchased units until I at present own some 150 units, that is low-rent units, \$4 per room per month or less to thousand-dollar-per-year men or less, mostly Negroes, and controlled directly or indirectly on something like a thousand houses. Without giving the details, let me say that the results of this 10-year experiment have indicated the following:

(a) From the standpoint of risk, the low-income man is a better risk than any other level of the population. Our vacancies and losses from all sources being under 1 percent.

(b) The renting of low-income houses under proper management has been a very profitable field establishing satisfactory returns on the private investments, after the payment of all taxes and other costs, private money entirely over half a million dollars which I have raised of my own and people I could get it out of in slum clearance and low-cost housing.

(c) There is a definite rental strata of the population, probably representing 30 percent of the total, in which strata it is an injustice to sell a man a house—generally, I think, the \$1,200-a-year man and less.

This man has not reached a sufficiently stable income position to justify home ownership. Individuals in the strata change, but the strata remains the same.

This, then, is the field of rental housing to the low-income group. My experiments in this field led me to the conclusion that there was a magnificent opportunity for the creation of what I choose to call a socialized utility in housing—socialized because low-rent housing has as a component factor, education. Low-rent housing without education is doomed to fail. Utility company, because only by long-range, sound planning can we get the operating strength necessary to get our rents down low enough to meet the need.

We merchandise light and gas on a utility basis, why not space which the light and gas service? Our policies in our utility company

include: Building the tenant's purchasing power by helping him buy coal at reasonable cost, not 10 cents a bucket, or \$20 a ton, and other goodwill building, humanized relationships.

Research in Philadelphia indicates that there are probably between twenty and thirty thousand houses available for such a development, and by that I mean houses that can be bought for under \$500 apiece, presenting good sound structures and that for six or seven hundred dollars can be modernized into thoroughly acceptable modern units. My observations over the country make me insist that there is equal opportunity for private capital in rehabilitation of old structures.

We have been able by sound methods of management and engineering to provide housing at not over \$1,500 per house, complete cost with all modern facilities at rentals of between four and five dollars per room in order to provide housing at approximately 25 percent of the cost proposed by U. S. H. A. housing—to provide a shelter rent less than U. S. H. A.; to pay taxes every inch of the way, and to pay a good return on the private moneys invested.

I am going to cut this extremely brief, and I want your permission to show you some lantern slides which can get before you quicker than any amount of talk, the actual methods of rehabilitation. May I have that permission, sir?

Mr. O'CONNELL. Mr. Chairman, I took the liberty of permitting Mr. Binns to make preparations to show a few lantern slides on the wall.

Acting Chairman REECE. There is no objection on the part of the committee.

Mr. BINNS. I have a transcript of every slide in the order which I will present them, so that the record may be complete of those slides.

Acting Chairman REECE. Do you wish to put the slides in the record? They may be filed.

(Transcript of slides referred to was marked "Exhibit No. 929" and is on file with the committee. Photographs of four comparative projects, before and after development, are reproduced herewith and appear on pp. 5362 to 5369.)

Mr. BINNS. The purpose of the slides is to show the recovery of value in blighted areas.¹

(1) There you have an old neighborhood in exhausted condition with no value at all. The income from that property was \$60 a month before we started, \$650 per month after we finished. You see, taking the unpleasant lot, making an inside court, and thus producing a value all around that court, the planning and gardening, and presenting of an attractive appearance.

Acting Chairman REECE. How many houses?

Mr. BINNS. Ten units in that particular development.

Acting Chairman REECE. And what was the cost?

Mr. BINNS. Per unit, sir?

Acting Chairman REECE. Yes.

Mr. BINNS. \$2,500 per unit.

(2) This just shows the front of typical old road dwelling, unattractive, and non tax producing, standing idle for many years, and

(3) The next slide shows what happened to that with simple modernization to recover the lost value.

¹ Mr. Binns' discourse was illustrated by an exhibition of 34 slides. Showing views of projects, before and after development, the number of each slide precedes his discussion.

(4) This is a view of the rear of that same.¹ Which is all too familiar to those of us in the big urban areas, again of an abandoned parking lot, nonproductive.

The whole point of this is to illustrate the methods by which rehabilitation and vitalizing of old, depreciated areas can get costs down low enough to reach the really low-income man. That is what I am talking about.

(5) That is the back, afterward, making a little garden and an attractive terrace, and all that goes with it to make a little beauty spot instead of highly unattractive spot.²

(6) That is another plot plan, again showing the production of gardens. This is in the heart of Philadelphia. It borders on a Negro neighborhood. Plans were left with the original plan, 12 houses, idle for many years, income \$20 a month; right, a park, same development, income \$1,050 a month.

(7) There you see the plan before we started on it—good structures, but abandoned, with almost 100 percent depreciation.

(8) Treatment afterward. You see, simply painting up, inexpensive treatment, you make a desirable appearance, and we have at the end of 3 years had one vacancy per 30 days.

(9) All of our stuff in the rehabilitated field has yielded profits to us over all, after depreciation and taxes, in excess of 10 percent. That is not something that may happen: that has happened.

There you look into the court—this barren old development—³ and I want to show you the effected plan.

(10) Same view exactly, but with a little imagination in the treatment of these old areas,⁴ using the facilities that are on our shelves—the depreciated real estate—to meet the low-income-housing demand.

(11) This is the plan of a Negro development in a very bad neighborhood, a section of the city which had been abandoned as useless, little narrow entrances, the alleys, and, again, clearing out of the sheds and back entrances to make two parks.

(12) The new plan includes a park in front and a park in back, with cross ventilation and trees, and treatment making an attractive spot where a thing of no value previously existed.

(13) You look into the development. You see again those houses boarded up for many years. Of course, there was no water and there were no toilets in any of this stuff, and you see—

(14) Again, the treatment afterward with simple planning and a little planting.

Our cost per unit on all our low-cost stuff, purchase and improvements, total cost—under \$1,500 per house; thoroughly modern, hard-wood floors, and all that sort of thing.

(15) Looking into the court again we see the abandoned, useless type, and again—

(16) This simple treatment with a little paint and decoration that goes with it and planting a tree—and it has been almost forgotten that there is such a thing, in the old, blighted areas.

(17) I am going very rapidly because of shortage of time. You see this alley, with all too typical—of dirty, filthy, little alleys of gar-

¹ See illustration (1612 Pine Street—rear—before), p. 5362.

² See illustration (1612 Pine Street—rear—after), p. 5363.

³ See illustration (415 So. Van Pelt St.—Court—before), p. 5364.

⁴ See illustration (415 So. Van Pelt St.—Court—after), p. 5365.

bage and bays. That word there is "Ice," not "Lice"—it might be "Lice"—but you see what happened to that:

(18) With simply cleaning up, taking off the bays, straightening the thing out, a little bit of planning. This is slum clearance—Negro area, and this point—rental \$4.28 per room per month.

(19) Again looking down the side you see the outside is privies, without any inside water, and all of the effect of decadent and slighted areas.¹

(20) And you see, the development there, again, with simple cleaning up and the modernization, by the rehabilitation of existing assets.²

(21) There you again see some poor-type houses with little alleys and tiny yards, back toilets, and the wrecked condition.

(22) See what happened to that. Those houses are eight-room houses, rented for \$25 a month. They have hardwood floors, copper tubing, inlaid linoleum, bathrooms, completely redecorated, cross ventilation, and modern in every way, rented in eight rows, \$4.28 a month.

(23) Here is a development which is on the main line of the Pennsylvania-Washington road of the Pennsylvania Railroad, which possibly some of you people have seen, but here were a group of 20 houses where for the first time we really were able to completely modernize the other units that I have.

(24) We haven't been able to carry as far as this, but here we completely modernized the thing, giving a really modern home for \$20 a month, five-room modern home, \$20 a month. That was the treatment before.

Some principles of treatment, the avoiding of exterior woodwork, a minimum of folderols. The painting of that house, 2 coats, front and back, cost \$12. Simplicity all the way along the line. Incidentally there are 20 houses; when we had them half finished we had 504 applications, \$10 bills which we had to return.

(25) The backs of those houses in which you see the abandoned condition, and the treatment afterward.

(26) That sign says: "Completely modern, privately financed, low-rent housing, \$4 per room per month."

(27) That was the condition of those units when they stood there for many years,³ and

(28) This was the separate treatment afterward.⁴

The fences were taken out, the place opened up, parks made, a little planning done, and we reached the low-income man, paid taxes every inch of the way, and produced a profit on the private investment.

(29) That little folder shows a plan which I think is just about the ideal poor man's house plan, two rooms, front and back, brick, fire-proof, living room, kitchen, and bath on the first floor—I mean living room, dining room, and kitchen on the first floor, two bedrooms and bath on the second floor. The absence of complications, simplicity, \$20 a month and including all the facilities which I have listed to you.

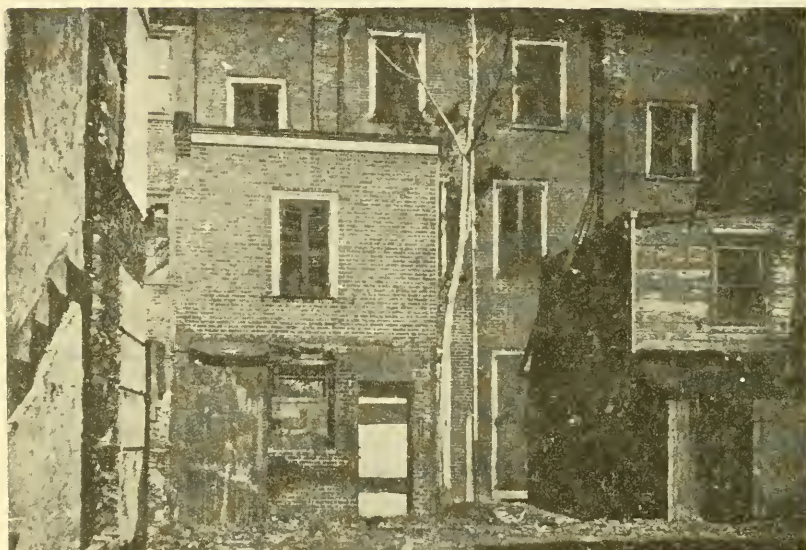
(30) There is a view looking down on an all too familiar blighted area. I wanted to show this to illustrate what simple planning and cleaning up could do. That is typical.

¹ See illustration (25 N. 40th St.—Rear Court—before), p. 5366.

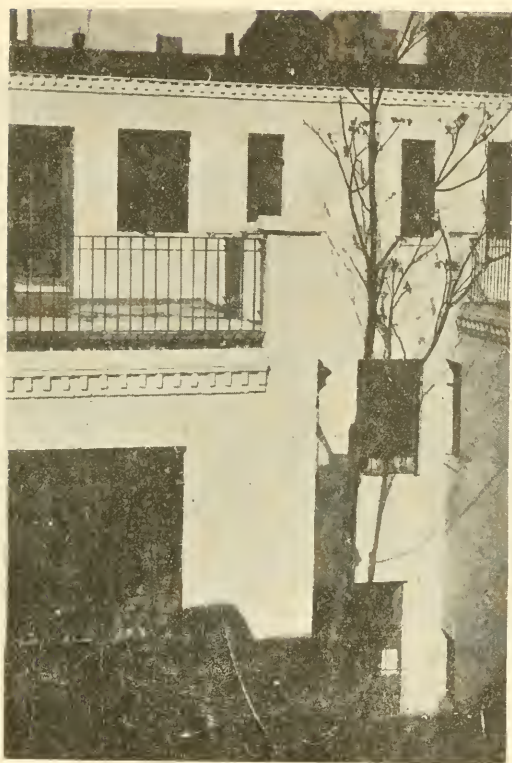
² See illustration (25 N. 40th St.—Rear Court—after), p. 5367.

³ See illustration (4506-44 Linmore Street—rear—before), p. 5368.

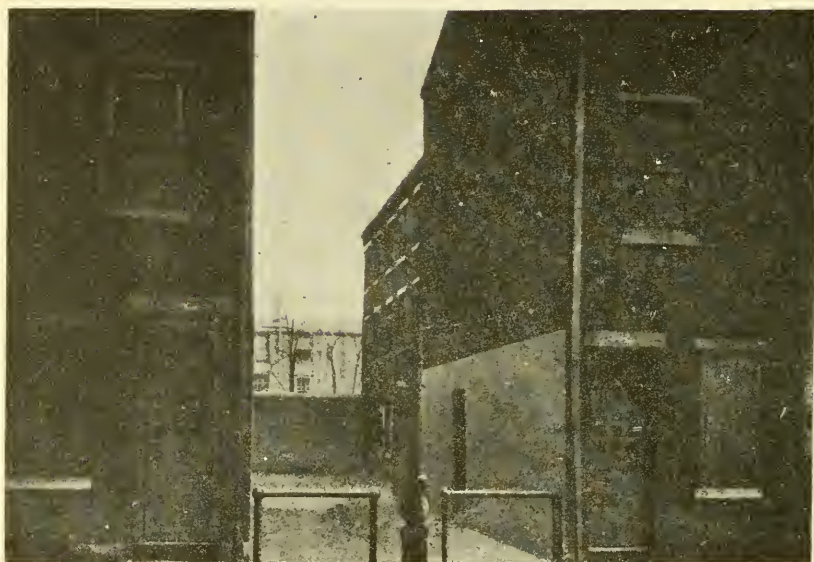
⁴ See illustration (4506-44 Linmore Street—rear—after), p. 5369.



1612 Pine Street—rear—before



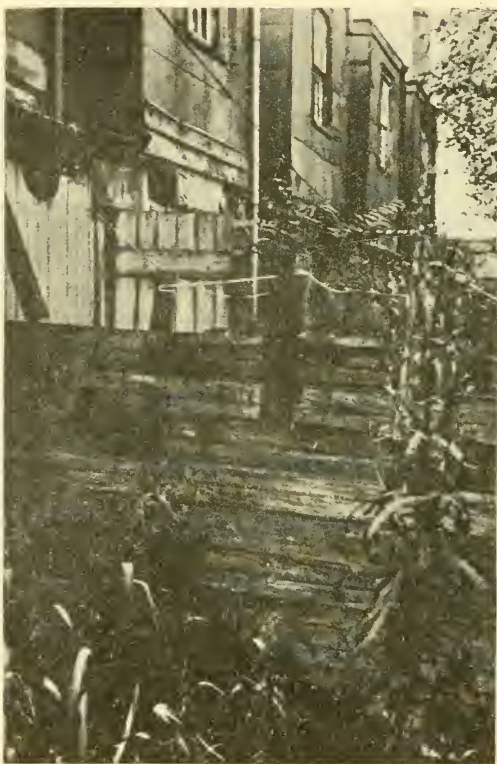
1612 Pine Street—rear—after



415 So. Van Pelt St.—Court—before



415 So. Van Pelt St.—Court—after



25 N. 40th St.—Rear Court—before



25 N. 40th St.—Rear Court—after



4506-44 Linmore St.—Rear—before



4506-44 LinmoreSt.—Rear—after

(31) At an expenditure perhaps of 25 percent of new cost we could obtain a completely modern development with a life probability as great as an entirely new structure like this. All that you saw in the other slide has nothing there except tearing down the sheds, taking out the things and making a development which would bring out the features that existed.

(32) There is a plan that we developed, and we have built one house like that which cost us about \$2,250. We think that if we had any volume we could get it down under \$2,000 per house, complete cost of building without the land. It is 15 feet wide, 20 feet deep, under 10,000 cubic feet, with a minimum of partitioning, a box wrapping up the cubage with maximum simplicity, a great steel sash, call it five rooms if you will, or four if you will, but we could rent that and build it brand new for \$25 per month at a cost without the land of around \$2,000, depending on the volume. With the land we feel there is every reason to believe we can do it for \$2,500.

(33) There is a projected development which I am now working on—I am thankful to say that I received a great deal of encouragement from F. H. A.—which is a garden in a slum. Those units are projected to be built for \$2,200 per house complete, brick simplicity, five-room units, taking advantage of the topography, the space rather than the complicated or expensive character of the house, to get our desired development. It is Negro, in a blighted area neighborhood.

(34) This final slide is a little slide which I was very much interested in, because 2 weeks ago, at the request of the National Association of Real Estate Boards, I was in Seattle, Wash., and there I saw hundreds of those little houses being built and sold for \$1,500, a house complete, lovely little things, California redwood siding, insulated, well-built, complete, oil-fired, air-conditioned, heat, three-piece bath, and all that sort of thing, illustrating the possibility by simplification of really getting down in cost, entirely with private capital, sponsored and backed by F. H. A.

That is the end of my slides.

I have a little more here to say but at the pleasure of the committee I will quit or go ahead as you like.

The question that naturally arises when one looks at that presentation is: Why isn't there more of it done? I have listed here in very simple form the obstacles which I think are in the way of solving the problem. I listed them as follows:

Obstacle 1: The lack of courage and vision on the part of private realtors and businessmen.—The business of the real-estate profession is shelter—and shelter means all of the population. We in our business have completely failed to meet 50 percent or more of our job. I do not know all of the reasons why we have failed, but I should like to indicate some of them and to indicate how I feel they can be solved.

First, there has arisen a curious paternalistic attitude toward the Government. It seems to be the thought that a paternalistic government with tax-supported bureaucracies should carry on the work and lives of 130,000,000 people—an obvious absurdity. No business which involves the element of subsidy can be sound, because obviously it walks with a crutch.

That sort of courage and vision, with the dauntless enthusiasm which refuses to be licked, must return to American business leadership.

It seems to me that in the twenties we reached the end of that sort of business leadership which thrived on quick profits, exploitation and greed—in other words, the capital-gains economy. That leadership deserved to and has largely perished.

There followed during the thirties a sort of Government receivership, in which bureaucracies attempted to carry the burden of business. These bureaucracies would never have existed, save for the lack of vision and the lack of courage of the businessman. But they are not the solution.

Now, I believe with the rise of the forties, and it is my experience from traveling around the country, a new sort of leadership is arising, a young leadership, a management phase of leadership, long-time service, not quick profits, a leadership which works side by side with Government, with Government supporting private capital to the common good. Whether you believe it or not, gentlemen, the hour is at hand. A great ground-swell of rededication to private initiative I believe is at hand.

In other words, the first obstacle is just lack of courage and I think the largest one and a proper one. I think we can lick it.

Obstacle 2: Labor.—Much has been said to the effect that organized labor is the principal fly in the ointment preventing active business recovery and large-scale building. Personally, I cannot get too much worked up about organized labor. For 25 years my contact with labor has shown me a pretty fair sense of cooperation on the whole with labor.

There have been extremes, of course; there has been unsocial conduct by some of the leaders, but I can think of many instances equally unfair on the part of capital and the employer, so that I do not personally feel that organized labor, as such, is the thing which is blocking progress.

Just one instance: Consider the 100-day year in force, I understand, in some of the automobile plants in Detroit, and all too much in force in the construction industry. What kind of Golden Rule relationship is it for businessmen and employers to hire labor for one-third of the year and to let them starve for the other two-thirds? That does not square with a fair deal.

I haven't a doubt but that organized, and the fine and statesmanlike leadership now arising in organized labor, will cooperate with any construction program. I do not think that the hurdle to meeting the needs of the low-income group is labor. Let a constructive program come forth, let public sentiment be aroused, let us all pull together for the common good, and organized labor and unorganized labor will be found with its shoulder to the wheel.

Obstacle 3: Financing.—The greatest single hurdle to reaching the low-cost housing field is financing. I have tried for 10 years to find any source of money available to a legitimate private developer or management for the field of slum clearance and low-cost housing work in blighted areas. I know of none. I have canvassed insurance companies, banks, private individuals, and every other source known to me, so far without any success. I have proven over and over again the soundness of the investment. I have shown operating records with splendid returns year after year, and still I have been unable to get fiduciary money released.

The only money that I have borrowed has been F. H. A. title 1 money at something like 9.6 percent interest per year, which must be repaid at the rate of 33½ percent per year. A statement which I should now like to make: I have been able working with private capital—and for a profit—to provide acceptable shelter rent, pay taxes in full, pay a return on my investment, working with 9.6 percent money retired within 3 years.

Contrast this with the terms of U. S. H. A.: 4 percent money, 60 years to repay, paying no city taxes and never making any return on the investment in interest or principal, as far as the tenant is concerned. What could private capital do if it had 50 percent as good a chance as the tax-exempt Government housing?

Now I am happy to report that within the last 2 months I have received repeated assurances and I am hopeful that we will arrive at slum-clearance financing and blighted-area financing through the Federal Housing Administration. Within the week I have had a very happy interview with Mr. Stewart McDonald and many of his associates. I believe that the F. H. A., undoubtedly the greatest of all Government measures, has within its power the cleaning up of the slums and blighted areas of this country. I believe that a combination of aroused private capital, backed by F. H. A. insurance, can clean up the slums and blighted areas of this country without one cent of cost to the Federal Government, sir. I have just returned from a long trip around the country under the auspices of the National Association of Real Estate Boards and I assure you, gentlemen, that private initiative with the slightest encouragement is willing and anxious to go to work.

Obstacle 4. Taxes.—Of course, from a long-range position, taxes are the greatest single detriment to the development of building or real estate ownership. I have some figures to indicate that if all of the net income in Philadelphia from all of the real estate was added up in one column, and the actual direct taxes added up in another, the taxes would exceed the total of all direct income. In other words, taxes have reached the proportion of confiscation.

Now the reason for this is not far to seek. In Pennsylvania years ago when the fundamental tax law was enacted, 90 percent of the wealth was real wealth. The legislators of that day, therefore, imposed 90 percent of the taxes on real estate. Today, however, as I understand it, only 40 percent is in real wealth, the balance being in personal wealth. Yet, still 85 or 90 percent of the taxes are paid by this 40 percent of the wealth. I do not guarantee these figures, but they are indicative.

The result is that the tax burden has reached proportions where it crushes the ability of the taxed to pay taxes. In other words, the proverbial goose that lays the golden egg has her neck on the block.

Now, I am sure that it takes a bigger man than I to make any diagnosis of our tax ills. However, I would not worry about it. I see no reason why it should stop us or influence us in any way. Everybody else has to pay the same taxes and ultimately there will be a rational solution effected. There is much progress being made in this direction. I think that we ought to work for adjusted and equitable taxes, but, in the meantime, the worst thing that we could do is to lay down and quit.

Finally, I ask you to consider the plan which I have to submit: Private capital awakened with a sense of service to the need; the support of the Federal Housing Administration; the doing of the job without subsidy and without one dollar of cost to the Federal Government.

One final statement that may seem a little bit sentimental: May I be permitted to say it seems to me that the greatest need of this hour is the revitalization of the spirit of enterprise and spirit of service and the rededication again to the principle of cooperation which made this country great; the support of private business by our Government so that we may all pull together in a team to achieve the greatest good for all of our people.

Mr. O'CONNELL. Mr. Binns, I was very much interested in your slides and apparently the major part of your activity has been in connection with so-called depreciated or slum areas. I was very much surprised to see how cheaply you were able to acquire the real estate. That seems to me to be one of the major parts of your ability to provide the dwelling accommodations at such a reasonable price. What is the explanation of that, being able to acquire real estate in the city of Philadelphia at such a reasonable price?

Mr. BINNS. Well, it is simply the business of foreclosure, depreciation, and write off the obsolescence. These properties were all over 60 years old, brick shells. It is not limited to Philadelphia; it is true in all the old cities, the old urban areas, I think.

Mr. O'CONNELL. From whom do you acquire the real estate usually?

Mr. BINNS. Banks, trust companies, private individuals, fiduciary institution, liquidating banks, building and loan associations, and all the rest.

Mr. O'CONNELL. Does the city take title?

Mr. BINNS. Not in Philadelphia. The city of Philadelphia doesn't take title to property tax foreclosures. It is a rather special situation.

Mr. O'CONNELL. What does it do?

Mr. BINNS. It just lets them sit there and accumulate tax. I don't know whether you want to go into it, but we have a technical situation in which the lien of a mortgage is not foreclosed and not discharged by a tax sale. In other words, the mortgage remains in force after the sale for taxes, and inasmuch as there are mortgages on nearly all the stuff, the city doesn't have any way to clean up title and can't make title.

I think it is about the only place in the country that that particular condition exists.

Mr. O'CONNELL. Is that particular situation to some extent responsible for the reasonable price at which you can acquire the property?

Mr. BINNS. Slightly, possibly. It is more just natural depreciation of old city areas than anything else. It is true in St. Louis, Chicago—anywhere you go.

Dr. LUBIN. Do you have to accept the liability on unpaid taxes when you take over property of that sort?

Mr. BINNS. Yes, sir; that has to be taken into consideration, too.

Dr. LUBIN. Is the city willing to make deals?

Mr. BINNS. We have no legislation which will permit it.

Dr. LUBIN. So you have to pay the full amount.

Mr. BINNS. It has to be discharged by somebody. It is an accruing lien, and incidentally a personal judgment as well.

Mr. O'CONNELL. A personal judgment against the owner?

Mr. BINNS. Yes.

Mr. O'CONNELL. That is not usually so.

Mr. BINNS. No. It is very peculiar in Philadelphia.

Mr. O'CONNELL. Then the owner of a piece of property with a lot of delinquent taxes would be under certain pressure to dispose of the property.

Mr. BINNS. That is right.

Mr. O'CONNELL. That might explain it to some extent.

Mr. BINNS. To some extent; yes.

Mr. O'CONNELL. I had always been under the impression that some property in a metropolitan area such as New York could not be acquired at anything comparable to the prices that you have indicated.

Mr. BINNS. I think you are right in that. New York is a very special problem, and Washington, the intense urban concentration in New York, and the high buildings. You see Philadelphia I think has the largest number of single dwelling units of any city in the United States. I think there are 500,000 separate units, just spreads from here to there, mostly two-story brick dwellings, endlessly. But we are convinced, and we are now setting up a demonstration of entirely new construction with private capital in slum clearance, getting down below \$5 per room per month.

Mr. O'CONNELL. In Philadelphia?

Mr. BINNS. Yes.

Mr. O'CONNELL. Do you acquire property in the slum area for that?

Mr. BINNS. The ground only.

Mr. O'CONNELL. The unimproved?

Mr. BINNS. Yes. In other words, we can buy ground for 25 cents per square foot, then we can put new buildings on it and get down below \$5 a room.

Mr. O'CONNELL. I was trying to explore how widespread the possibility would be of acquiring, let us say, unimproved property in that type of area for 25 cents a square foot. Do you think it could be done extensively?

Mr. BINNS. I don't know. I can tell you I went around with a group in Baltimore, in Chicago, in Milwaukee, in Seattle, Wash., in Duluth, Minn., and in all those places there was ample supplies of 25-cent-a-square-foot land. It is my belief that there is ample supply in the blighted areas of 25-cent land in every city in the country, with the possible exception of New York and Washington. That is just my belief. I am not here to prove it.

Mr. CHAWNER. Are these areas zoned for other uses than residence use? Does that have anything to do with the value?

Mr. BINNS. No, sir. They are old residential areas which were occupied many years ago before the suburban migration began.

Mr. CHAWNER. They are not zoned exclusively for residential use, they may be used for other things?

Mr. BINNS. That is right, commercial or residential.

Mr. O'CONNELL. I was interested in what you had to say about your attempts over the past 10 years to influence or to interest purely

private capital in aiding in this sort of development. I understood you to say that in spite of a proved record of earnings and your ability to show that this type of development afforded a very good outlet for private capital, that you were substantially without any success.

Mr. BINNS. That is right, sir.

Mr. O'CONNELL. And such developments as you have undertaken so far were either with private funds or were funds which were encouraged by F. H. A. insurance under title I.

Mr. BINNS. That is right.

Mr. O'CONNELL. But now it appears that more recently there is strong possibility that you could get the title II rate.

Mr. BINNS. Yes. That is very satisfactory.

Mr. O'CONNELL. But it would also be true, would it not, that at the present time, despite your hope for a renaissance, so to speak, among the private investing public, in the absence of the F. H. A. insurance we haven't the degree of courage, meaning the private investors, that you had hoped to develop at some time.

Mr. BINNS. That is right, sir. In other words, the banks and insurance companies, fiduciary institutions and everybody like that, take the position that no mortgage is good enough in a blighted area, no matter if it is 10 percent of new cost, no matter if it pays 50. They just will not go into it.

Mr. O'CONNELL. So you would accept as inevitable and desirable for some time at least the necessity for some Government help comparable to the F. H. A. assistance.

Mr. BINNS. That is right, the underwriting of the insurance, and then with the Government insurance we could get all the fiduciary money we want.

Mr. O'CONNELL. Yes; if the Government takes the risk, which is really what it amounts to.

From something you said, I thought you might be hopeful that even that particular form of Government aid might not be necessary.

Mr. BINNS. I think that it will be. In other words, if we can get, all over the country, utility housing companies—there is nothing more unsound than the present agency basis of management of real estate, but if we can get utility housing companies started on a long-range basis with social background, we can get money in the bank and get a strong position, and the time is going to come very shortly, in 2 or 3 years, when banks will say, "Oh well, we don't need that guarantee. We will go ahead."

Mr. O'CONNELL. If the trail is sufficiently well blazed and marked out private capital will be willing to invest without something to guarantee the limit of its loss.

Mr. BINNS. That is right.

Dr. LUBIN. What do you mean by utility housing, the right to condemn by eminent domain, given plats?

Mr. BINNS. No; I am perhaps using the word "utility" improperly. What I mean is a management which owns the properties, which looks for permanent existence, which always rents and never sells, which is interested in building the good citizenship of the tenants, a permanent management organization as owners. The nearest thing I know to it is the utility company idea, so I use that word, but I don't think the power of eminent domain at least presently is necessary.

Dr. LUBIN. Judging by those photographs you showed us, most of those projects of yours are fairly large; in other words, they contain 5, 10, 15, 20 dwelling units. Let's assume that you move further in that direction in those communities; after all, to make the thing worthwhile and do it on an economical basis you can't pick up one house and rehabilitate it and skip 6 more blocks and pick up another. It is a question of rehabilitating a dozen at a time.

Mr. BINNS. No, sir; most of my stuff is individual houses. Those that I showed were very few of my holdings, but the great majority of them are houses 2 or 3 in this block, 2 or 3 in that block, and there are many reasons why that form of ownership is stronger than a larger group, because if you have got 3 sour apples in the barrel and you fix those 3 sour apples, the natural resiliency of the rest of the block pulls your value up and from the standpoint of servicing the neighborhood it is probably as good a thing as you can do. I directly or indirectly have something like 500 of that type that I have had for some time.

Dr. LUBIN. In other words, the fact that you have in your block 20 houses, 17 of which are the type you showed us before you rebuilt, has no effect upon the value of the 3 that you rehabilitate? In other words, with the trends of the neighborhood, people wanting to move, is there anything to deter people from moving into a block that has 3 houses you have rehabilitated whereas seventeen others in the block are just ordinary?

Mr. BINNS. There is nothing to deter them. They will move in my houses first, but if they can't get one of the 3 good houses they will take the bad house, but the situation in real life is in the reverse; there will be 17 fairly good houses and 3 bad ones. If you took the 3 bad ones and fixed them up, then the black eye, as it were, given by the 3 bad ones would be removed, and the value of the whole block would be improved, yours and the other fellow's too.

Dr. LUBIN. The thing I am trying to get at is this. You go into a blighted area and you see block after block of blighted houses. Is it a profitable venture to go in and start with two of those?

Mr. BINNS. And leave the others all bad?

Dr. LUBIN. Yes.

Mr. BINNS. That would be a questionable thing to do.

Dr. LUBIN. That raises the next question. If you go in and rehabilitate five of those houses, somebody on the block may hold you up and say you can't get any more around there unless you pay a price which is exorbitant. That happens in New York City.

Mr. BINNS. It has happened to me every time.

Dr. LUBIN. That is why I was thinking of utility. How do you overcome that?

Mr. BINNS. I just don't. I go ahead and fix my five houses up and I say to him, "Look how much nicer it is than it was before. You fix your house up," and in every case that I have ever done it, always the rest of the block cleans itself up. You point the way and all the rest of them get interested. I don't care; I would rather he would own it if he can improve my value without my expense. Do you see the idea?

Acting Chairman REECE Mr. O'Connell, referring again to the slides, I think it would be helpful for the record if we had four of those illustrating the condition before and after treatment printed in the record.

Dr. LUBIN. I would like to ask another question, Mr. Binns, if I might. From what you said I took it that most of these houses had no utilities in them in terms of gas, water, sewerage, and things of that kind.

Mr. BINNS. To all practical purposes, that is true.

Dr. LUBIN. Which meant you had to bring those utilities in.

Mr. BINNS. They were in the cellars. That is, all old neighborhoods that for years and years had had all the utilities in the streets, but they were either in the cellars or in the sidewalk and had to be brought into the house, but the improvement in the house had either never been there or had been abandoned and written out or mostly never been there.

Dr. LUBIN. So you were not put to the expense of bringing these utilities in.

Mr. BINNS. That is one of the great advantages of rehabilitation, because all your street improvements and utilities are right at your door, and the transportation in the center of the city, and it is in the area where it is needed rather than way out in the suburbs.

Acting Chairman REECE. We thank you very kindly, Mr. Binns.

(The witness, Mr. Binns, was excused.)

Mr. O'CONNELL. I had intended calling another witness at this time. I would prefer to let the committee decide whether we can eliminate the witness. I had intended calling Mr. Hoess, who is a practical builder who has had some experience in the building field out in Hammond, Ind. If it is the pleasure of the committee I suggest we adjourn and let me attempt to make peace as best I can with Mr. Hoess.

Acting Chairman REECE. If you think you can do that I think the committee will be very happy about it. The committee will stand in recess until tomorrow at 10 o'clock.

(Whereupon, at 4:35 p. m., the committee recessed until 10 a. m. the following day, Friday, July 12, 1939.)

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

FRIDAY, JULY 14, 1939

UNITED STATES SENATE,
TEMPORARY NATIONAL ECONOMIC COMMITTEE,
Washington, D. C.

The committee met at 10:20 a. m., pursuant to adjournment on Thursday, July 13, 1939, in the Caucus Room, Senate Office Building, Senator Joseph C. O'Mahoney presiding.

Present: Senator O'Mahoney (chairman); Representative Reece; Messrs. O'Connell, Lubin, Ballinger, Berge, Davis, Frank and Brackett.

Present also: Messrs. Willard Thorp and Ernest A. Tupper, Department of Commerce; Gordon Dean, Department of Justice; Willis J. Ballinger, Federal Trade Commission; and Peter A. Stone, coordinator of construction studies for the committee.

The CHAIRMAN. This meeting will come to order.

Mr. O'Connell, are you ready to proceed?

Mr. O'CONNELL. I am, Mr. Chairman. I should like to make a very brief statement before calling the first witness. It will not be necessary to summarize what has gone before in this hearing other than to say that it has been made evident that there exist today vast accumulations of capital seeking attractive investment opportunities, that so far as the construction industry is concerned the field that appears most lucrative is private residential building and that with respect to private residential construction the greatest field lies in the building of homes for one-third of the Nation's families—the so-called middle income group. We have heard testimony relating to the deterrents of increased building and testimony relating to suggestions for removing these deterrents. No inquiry on housing would, of course, be complete without some testimony relative to Government's participation in the field. With this in mind, it was decided that representatives of the Government housing agencies should be called and give to the committee a bird's-eye view of their activities.

With that in mind, I should like to call as the first witness Mr. Fahey.

Mr. Chairman, I might say that I had intended asking Mr. Fahey a series of questions, but fortunately for me Mr. Fahey has prepared a statement which so well answers the questions that I had intended to ask, that with the permission of the Chair I would prefer that he be permitted to read his statement, particularly since he has to get away.

The CHAIRMAN. Very well.

**STATEMENT OF JOHN H. FAHEY, CHAIRMAN, FEDERAL HOME
LOAN BANK BOARD, WASHINGTON, D. C.****ACTIVITY OF HOME LOAN BANK BOARD IN REDUCTION OF FINANCING
COSTS**

Mr. FAHEY. Mr. Chairman and gentlemen of the committee, the Federal Home Loan Bank Board was established by act of Congress on July 22, 1932, to supervise the Federal home loan bank system. The legislation to create this urban mortgage reserve system was the result of the President's Conference on Home Building and Home Ownership which met in Washington in December 1931. This conference was preceded by prolonged committee studies of various phases of the home ownership problem in the United States. Its recommendation that a home-mortgage reserve system be set up was the only one of any importance which resulted in action.

In June 1933, Congress authorized the Board to charter and supervise Federal savings and loan associations. At the same time it established the Home Owners' Loan Corporation and provided that the members of the Federal Home Loan Bank Board should serve as the board of directors of that Corporation.

With billions of savings in hoarding following the 1933 financial crisis, Congress created the Federal Savings and Loan Insurance Corporation in June 1934, a few months after the Federal Deposit Insurance Corporation insured deposits in the commercial banks. The Federal savings and loan insurance was intended to provide for the people who placed their small accumulations in savings institutions, protection similar to that accorded to the depositors in commercial banks.

The Federal Home Loan Bank Board, as a result of its supervision of the four agencies to which I have referred, has a very large and a very direct interest in the entire problem of home ownership in the United States.

Through the Federal Home Loan Banks it makes advances to, and examines and supervises nearly 4,000 local lending institutions with assets of four billion four hundred millions of dollars. Through the Home Owners' Loan Corporation it holds now over two billions of dollars of first mortgage loans on 862,201 homes and directly owns 88,801 properties representing an investment on the part of the Corporation of \$506,248,027.

THE CHAIRMAN. What is the character of that loan? How did you acquire it?

Mr. FAHEY. As the result of foreclosure in the banks, and so forth.

Federal charters have been issued by the Board to nearly 1,400 savings institutions whose assets now aggregate over \$1,400,000,000. The Federal Savings and Loan Insurance Corporation has granted insurance to over 2,000 savings associations with total assets slightly in excess of two and one-quarter billions of dollars and it insures the accounts of more than 2,000,000 savers.

Mr. O'CONNELL. Mr. Fahey, is that insurance the same type of insurance that depositors in banks have?

Mr. FAHEY. It is not, except that the limit is the same, \$5,000, but in the case of Federal savings and loan insurance, as I explain later on here, the Corporation is not called upon to make immediate cash payments in the event of receivership. It has time to make the full

payment out of liquidation before calling on any of the resources of the Corporation.

Now neither is the Federal Deposit Insurance Corporation required to make immediate cash payment, but as a matter of policy it has done so up to date and will probably continue to do so because it is dealing with demand deposit institutions.

Mr. O'CONNELL. Do you think there is a distinction between the type of obligation that exists between the savings and loan association and its depositors and the bank?

Mr. FAHEY. There is, that is right.

The Bank Board has direct responsibility, through the Home Owners' Loan Corporation and the Insurance Corporation, for the supervision of home mortgage assets amounting to nearly 5 billions of dollars out of a total of about 17½ billions of outstanding urban home mortgages.

The Reconstruction Finance Corporation, the Federal Housing Administration, the United States Housing Authority, the Farm Credit Administration, and the Federal Home Loan Bank Board have had a closer contact with our housing problems on a national scale than any Government or private organizations have ever had in the history of the country. These experiences have been gained during a peculiarly difficult period and I think as a result there has been accumulated a more comprehensive knowledge of the complications of our housing problem than has heretofore been available.

The work of these Government organizations in the housing field has disclosed hitherto unappreciated weaknesses in mortgage lending methods, emphasized the disorganization of the construction industry in the residential field and made apparent the widespread evil effects of over-speculation in real estate and exploitation in the building and selling of homes.

I know your committee desires to have the facts as to the present condition of the several institutions for which the Federal Home Loan Bank Board is responsible and their methods of operation.

FEDERAL HOME LOAN BANK SYSTEM

Mr. FAHEY. The Federal Home Loan Bank System consists of 12 regional banks and their member institutions. Initial capital for these banks was provided by the Government and provision was made for subscriptions to stock in the banks by the institutions which accepted membership. The present capital is \$164,072,450, of which \$124,741,000 has been subscribed by the Government and \$39,331,450 by the institutions. Surplus and undivided profits total \$9,277,623. Membership in the Bank System is open to institutions making long-term loans on urban homes. As of May 31, 1939, the total membership in the Bank System was 3,949 institutions, of which 2,524 were State-chartered savings and loan associations, 1,376 were Federal savings and loan associations, 9 were mutual savings banks, and 40 were insurance companies. The Bank System was planned as a reserve system for institutions making home mortgage loans just as the Federal Reserve System was established for the protection of commercial banks and the Federal land banks to provide reserve facilities in the farm-mortgage field. The 12 banks make advances to their members from time to time against the collateral of home mortgages, practically all of which are on an amortized basis. These

advances are made carefully on a conservative basis and the loans are, therefore, of the soundest character.

Representative REECE. Have those banks paid dividends yet?

Mr. FAHEY. Yes; they have paid dividends almost from the first, during the last 5 years.

Beyond the capital stock owned by the Treasury and member institutions, the banks obtain their funds by accepting deposits from members and through the sale of debentures. These debentures are so protected that they command a ready market. On May 31, last, consolidated debentures outstanding amounted to \$90,000,000, but \$41,500,000 of debentures were paid off in full on July 1, leaving a balance of \$48,500,000 outstanding today. Member institutions borrow from the banks when they have demands for mortgage loans in excess of cash on hand at the time. They then pay off these loans as cash accumulates from payments by borrowers on amortized mortgages or as the volume of savings entrusted to them by the public increases. They also borrow at times to meet seasonal withdrawals. Access to the resources of the banks on the part of member institutions means not only protection in times of difficulty, but, under anything like normal conditions, continuous ability to meet the local needs of home owners to borrow on a long-term basis to buy or to build homes. The existence of the Bank System also makes possible the transfer of money from sections of the country where there is a surplus to cities and towns, and particularly the smaller communities, where local savings are at times insufficient to meet the borrowing needs of home owners.

Although the Federal Home Loan Bank System came into existence in July 1932, as I have explained, it did not begin actual operation until October of that year. By that time, following the wave of foreclosures in 1931 and 1932, conditions in the urban home mortgage field had become so chaotic that the Bank System was unable to contribute in any important way toward relief. In these two years more than half a million urban home foreclosures had taken place in the country, and families representing a total of about 2,000,000 persons had lost their homes. When the legislation creating the System was taking final form in Congress, an attempt was made to provide immediate relief for those who were losing their homes by authorizing the banks to make direct loans to home owners. The restrictions surrounding the making of loans of this character were such, however, that out of 41,580 applications received, only 3 loans amounting to \$9,000 were made in the entire country at a cost of \$136,591. Up to the 1st of January 1933 the Bank System had but 101 members. It really did not begin to function until after the bank holiday. The growth in membership has been almost entirely since the fall of 1933. Since it began active operation the Bank System has made a total of \$522,023,000 advances. The highest figure of loans outstanding at any one time (December 1937), was \$200,094,628. As of July 7, 1939, the figure was \$166,254,699. The amount of loans, of course, increases and decreases from month to month depending upon conditions. The total of loans as of January 1, 1939, was \$198,842,438. Net repayments have reduced this figure by \$32,587,739.

FEDERAL SAVINGS AND LOAN ASSOCIATIONS

Mr. FAHEY. In June 1933 Congress authorized the Federal Home Loan Bank Board to charter and supervise Federal savings and loan associations which might be organized by local groups throughout the country. With the consent of the State-affected, State-chartered savings and loan associations which wished to do so could change to Federal charters. Federal savings and loan associations are local, privately owned and managed thrift and home financing institutions strictly mutual in character. They operate under the provisions of a uniform charter which assures adherence to the best practices of mutual thrift and home financing associations. They are subject to supervision and regular examination by the Federal Home Loan Bank Board. Every Federal association is a member of the Federal Home Loan Bank of its region, and it is also obliged to be insured by the Federal Savings and Loan Insurance Corporation. As a result these Federal associations have attracted extraordinary public attention and support.

On June 30, 1939, there were 1,380 federally chartered associations, of which 744 had been converted from State charters and 636 were newly organized associations. Their total assets on June 30 aggregated \$1,408,616,000. Obviously, because they enjoy the protection of membership in the Bank System and also because they are insured, these Federal associations during the past 2 years have shown a larger increase in the amount of savings entrusted to their care than any other class of savings institutions. In proportion to their resources they have also made more home loans than any other group of lenders. An identical group of Federal associations reported a savings increase of 17% for 1937 and 22% for 1938. The reactions which come to us from all parts of the country indicate that the Federal name and Federal supervision of these institutions, aside from their other advantages, have been important factors in influencing their growth.

Representative REECE. Did the Board put up any money originally for these Federal savings associations?

Mr. FAHEY. It did. In connection with the passage of the original act, Congress authorized the Treasury to subscribe \$100,000,000 which might be invested in the shares of these associations when they were organized—Federal associations. Fifty million of that was appropriated and subscribed by the Treasury. Later, because of the shortage of mortgage money in the country as a whole, Congress provided that up to three hundred millions of bonds of the Home Owners Loan Corporation might be issued in exchange for subscriptions to shares in either Federal or State chartered associations throughout the country.

A total of something more than \$200,000,000 has been subscribed to the shares of these associations in all parts of the country. They are all making a return on that money and we are just now reaching the point where repayments of those advances are beginning.

The CHAIRMAN. When you speak of this increase in savings which makes this system the most successful of all savings institutions now, as I understand your testimony, you don't mean to have the com-

mittee understand that the savings are idle. The savings in these associations are being used in the promotion of homes, are they not?

Mr. FAHEY. The fact is they are receiving money from the public at a faster rate than any other institutions and they are employing that money at a faster rate than any other class of institution.

The CHAIRMAN. Practical and successful use is being made of the increased savings through these institutions?

Mr. FAHEY. Exactly.

Representative REECE. And if those types of institutions had more funds, they could do even a great deal more than they are doing now; that is, they are able to utilize all the funds they have. Their operations are limited only, so far as I have been able to observe, by the capital which they have available to invest.

Mr. FAHEY. Generally speaking I think that is the case, although in some localities they at present are getting money faster than they can place it satisfactorily. That is true particularly of the cities of substantial size, for example, New York.

Representative REECE. I haven't been to the larger cities very much.

Mr. FAHEY. However, generally speaking, they are getting money about as fast as they can safely and usefully employ it. They encounter no difficulties in getting money right now.

The CHAIRMAN. Do you interpret that circumstance, that use in the cities is not as readily obtained as in the less urbanized districts, to mean that the growth of the cities is falling off?

Mr. FAHEY. There are a number of causes, Senator. For example, in the large cities a good part of the mortgage investment is in apartment houses and other multiple dwellings, and our institutions under the law are still limited to making loans on one- to four-family houses. Consequently, they are not free to go into apartment-house financing.

Again, I wouldn't have you believe it is true generally but in a number of the cities the overhang of real estate is still such that it isn't easy to develop new investment except with more or less of a speculative risk in the apartment-house field and in the suburban areas outside of the cities. However, the excess of funds on the part of these institutions in such localities isn't a serious matter. What they have to do is to put them into Government bonds or something else temporarily until they can use them for mortgages which represent a better return.

Dr. LUBIN. Does the Federal Home Loan Bank system make provision for these Federal associations to make deposits of such surplus funds so that they might be reloaned?

Mr. FAHEY. Oh, yes.

Dr. LUBIN. So that the local Federal association could take the surplus funds and turn them over to the Federal Home Loan System.

Mr. FAHEY. Yes; and they do. Of course those deposits from the members vary. They go up and down as they need the money, don't you know. And then as I have already explained, it can be transferred from one section of the country to the other. If the Boston bank has surplus funds and the Los Angeles bank has a demand for them, we can overnight transfer a million or two or three, whatever is wanted. That is the thing that is going on all the time.

FEDERAL SAVINGS AND LOAN INSURANCE CORPORATION

Mr. FAHEY. The Federal Savings and Loan Insurance Corporation was established by act of Congress in June 1934. Any savings and loan institution which applies for insurance and is approved by the Corporation receives a certificate of insurance protecting the safety of any savings account up to \$5,000 for each individual. The Corporation does not assure immediate cash payment in the event of receivership, but does assure the saver of the full return of his principal up to the limit prescribed within a reasonable time. The Corporation's capital stock of \$100,000,000 was subscribed by the Home Owners' Loan Corporation. Each insured association pays an annual premium based upon its total share and creditor liability. The premiums are used to build up reserves. The expenses of the Corporation are being paid currently from the interest on its reserve fund. The losses of the Corporation to date have been negligible, amounting to only \$379,000. On May 31, 1939, the Corporation's accumulated reserves amounted to \$18,054,289. On that date 2,138 associations having total assets of \$2,258,086,000 were insured. Of these 1,380 were Federal savings and loan associations and 758 were State-chartered institutions.

As in the case of the Federal Deposit Insurance Corporation in relation to deposit accounts in commercial banks, the existence of the Federal Savings and Loan Insurance Corporation is having a significant influence in restoring confidence to thrifty people and in making more money available for home acquisition and home building in the thousands of communities scattered all over the country where more and better homes are needed. Insurance unquestionably was responsible for bringing billions of dollars from hoarding back into our financial institutions. It is to be remembered that we still have about a billion dollars in hoarding. For decades the great bulk of the mortgage money which made possible the purchase or construction of homes for our people has come from the savings of the workers of the Nation in small amounts. Aside from the money invested in this field by the life-insurance companies and mortgage companies which have invariably restricted their lending to selected areas, practically all of this money has been saved and lent through local institutions locally managed by people in close touch with the needs of the community and well informed concerning the reliability of borrowers.

HOME OWNERS' LOAN CORPORATION

Mr. FAHEY. The Home Owners' Loan Corporation is better known to the public, as well as to Members of Congress, than the other agencies under the supervision of the Federal Home Loan Bank Board because its work has been much more spectacular and conducted on a large scale. If the Federal Home Loan Bank System had been firmly established as an urban home mortgage reserve system twenty years ago, it would undoubtedly have prevented many of the hardships which afflicted home owners from 1929 to 1933. As I have already explained, this System did not begin to operate until the end of 1932 or to show any substantial strength until 1934. Because private agencies were wholly unable to cope with the chaotic situation

which had developed in the urban mortgage field the Federal Government was obliged to take the unprecedented step of organizing the Home Owners' Loan Corporation to make direct loans to home owners threatened with the loss of their property through foreclosure. Loans could be made under the law for a 15-year period at a flat 5 percent rate, amortized on a monthly basis, and on the basis of a liberal appraisal. As soon as the offices of the Corporation were opened, they were flooded with applications. A total of 1,886,491 applications were received, amounting to \$6,173,355,652. When it suspended lending on June 12, 1936, the Corporation had made 1,017,948 loans in the amount of \$3,093,450,641. Advances for reconditioning and taxes made subsequent to the closing of the original loans have brought the total advances made by the Corporation through May 31, 1939, to \$3,167,764,388. The average loan closed amounted to \$3,039. By the early part of 1935 the acquisition of mortgages by the Corporation and its disbursements of funds had so relieved the mortgage market and stabilized real estate values that the applications thereafter declined by the Corporation were invariably refinanced by the lenders without objection from any part of the country.

As of May 31, 1939, there were 862,902 accounts on the books of the Home Owners' Loan Corporation and being billed. As of that date these loans totaled \$2,091,324,356. As of the same date foreclosures resulting in the acquisition of properties totaled 138,640; 50,665 of these properties have been sold and 88,801 are on hand. The total capitalized value of the properties the Corporation now holds is \$506,248,027. This capitalized value represents unpaid principal, all unpaid advances, including taxes, insurance, and repairs made by the Corporation for the borrower's account, foreclosure costs, accrued and unpaid interest as of the date of foreclosure judgment, charges to the property during the foreclosure period, all initial reconditioning regardless of when made and capital improvements or betterments after acquisition.

The CHAIRMAN. How many loans have been completely paid off, Mr. Fahey?

Mr. FAHEY. Amounting to about \$125,000,000.

The CHAIRMAN. I mean in number. I was checking these figures. It would appear when you suspended lending in June of '36, you had made 1,017,948 loans.

Mr. FAHEY. That is right.

The CHAIRMAN. Then you say as of May 31, 1939, there were 862,902 accounts on the books. If you subtract one from the other, it leaves 155,046 accounts which are no longer active.

Mr. FAHEY. That is right.

The CHAIRMAN. But of these 138,640 were foreclosures.

Mr. FAHEY. That is right.

The CHAIRMAN. Then there were abandonments, I suppose, in addition to that, so that the actual number of complete payments is probably rather small.

Mr. FAHEY. The number as of May 31 was 52,827. The amount paid off in cash, \$123,625,115, paid in full.

The CHAIRMAN. Give me that figure again, please.

Mr. FAHEY. \$123,625,115.

The CHAIRMAN. You are giving me dollars?

Mr. FAHEY. Yes. The number was 52,827 paid in full.

The CHAIRMAN. Those figures wouldn't quite balance, but I suppose they could be adjusted. If you add 138,640 to 52,827, you get 191,467; but subtracting the number of accounts now on the books from the total number of loans as given, the figure is only 155,046. I am sure that that can be adjusted.

Mr. FAHEY. Some of it may be accounted for by additional foreclosures in process which have not been effected. I mean they are foreclosures that have been authorized but have not been effected.

The CHAIRMAN. Now, of these accounts that are now on the books, how many are in good standing and current?

Mr. FAHEY. I am coming to that.

Dr. LUBIN. Mr. Fahey, according to the statement of \$123,000,000 actually being paid up—that means in the past 3 years, that is, from June 12, 1936, to date—about 4 percent of the loans have actually been paid up?

Mr. FAHEY. Paid in full.

Dr. LUBIN. About what percent a year?

Mr. FAHEY. I wouldn't undertake to say as to that without checking, because my impression is that most of those loans which have been paid in full have come in the last 2½ to 3 years. You understand those are cases where the borrowers, their mortgages, had a long time to run, but they have found it worth while to come in and pay cash in full and pay them off. Now, in a large portion of those cases we find that they have refinanced them through private institutions when they have been paid down, and to digress a minute, of course that represents one of the opportunities for comparatively early liquidation of the Home Owners' Loan Corporation. In other words, within the next probably 3 years, the great bulk of these loans ought to be paid down to the point where it is no longer necessary for Government institutions to carry them.

The CHAIRMAN. Can they be refinanced in private companies to better advantage than in the Home Owners' Loan Corporation?

Mr. FAHEY. They cannot. Of course, in my judgment, they ought not to be refinanced by that method unless they secure equally good terms. But those that have been refinanced, it is very apparent that they received equally good returns, because they wouldn't give up a 5-percent, 15-year H. O. L. C. mortgage.

The CHAIRMAN. Of course, the extension of the period of amortization might be an inducement to refinance.

Mr. FAHEY. That hasn't been our observation in these cases. It would seem more apparent that these borrowers had more substantial sums of cash and could reduce the amount of the mortgage. You add that they inherit a little now and then, it comes one way or another, don't you know, and then they want to pay down the mortgage.

Taxes, insurance, and other items of property expense after acquisition are not capitalized but are charged to property expense. The sales price of a property is not based upon capital value or acquisition cost but upon the current market price. The capital value is not the determining factor in the establishment of the sales price or in arriving at a decision to accept or reject an offer of purchase. As of May 31, 1939, of the 50,665 properties sold, 39,231 were sold at a loss and 11,434 were sold at prices equal to or slightly in excess of the Corporation's capital value.

Representative REECE. What is your problem with reference to deficiency judgments?

Mr. FAHEY. We don't take deficiency judgments except where it is apparent that the defaulting borrower has property or means of meeting his obligations and is trying to evade them. There are cases, however, in some of the States where the law is such that, as a matter of formal procedure, you do have to take deficiency judgments in order to protect yourself, but we do not attempt to enforce deficiency judgments in any case and haven't done so unless we are completely satisfied that the borrower is attempting to evade his obligation.

Dr. LUBIN. Mr. Fahey, of those total sales, 50,665 of which 39,231 were sold at a loss, what was the total net loss of the Corporation? Is that in your testimony further?

Mr. FAHEY. Yes.

The sales prices on H. O. L. C. properties cover a wide range from less than \$1,000 to a few in excess of \$14,000. The great majority of our properties are in the lower-price brackets, and the average sales price to date has been \$3,500. The average loss to May 31, 1939, has been \$766.52. To the 1st of June the Corporation had sold a little more than 36 percent of its acquired properties. The sales have been rising steadily since 1937, and the month of May just closed represented the peak figure. We expect that June will be still higher. With the exception of 2 months, the rate of sales has exceeded the rate of foreclosures since May 1938. We dispose of properties in possession as rapidly as we are able to do so without demoralizing the local real estate market or taking unwarranted losses. The Corporation is such a large factor in the residential real estate market that if it pursued a policy of dumping, irrespective of losses or local conditions, it would soon so undermine the real-estate structure as to not only stop new building but depress the value of the hundreds of thousands of homes on which it holds mortgages. It is obliged to exercise the best possible judgment in the disposition of acquired properties, giving careful consideration to present and prospective conditions in each community.

Properties acquired by the Corporation are listed for sale or for rent with contract and approved brokers, who are carefully selected on the basis of their experience. The Corporation has been familiar with the records of a large proportion of them since the beginning of its operations, and the present lists are made up from the ablest and most reliable we have found during the last 6 years. Commissions paid to these brokers on sales are fixed by the home office on the recommendations of our regional offices and are based on local real estate board rates. We sell properties for all cash or for a cash down payment of 10 percent or more of the sales price, with the balance amortized over a period not exceeding 15 years. To date the net amount received from sales represents recapture of 76.4 percent of the capital value of property sold.

The CHAIRMAN. When you speak of the capital value of the property, what do you mean?

Mr. FAHEY. That includes the items which I have previously cited here as representing capitalized value on our books. In a word, it is all costs up to the date of acquisition.

As a result of an analysis of some 46,000 properties sold up to April 30 last, we find that our properties are owned by the Corporation for an average period of a little more than 10 months before they are

sold. Of course, acquired properties are rented wherever possible until a sale is effected unless there is good reason for not renting because of prospects of prompt sales with which rental would interfere. When we acquire a property, it is in practically every case necessary to make repairs and improvements. From June 1, 1934, to date, the average expenditure on each acquired property has been about \$333 per case. Repairs and modernization are not only necessary if a fair price is to be received for the property, but the work which the Corporation has been doing in this direction is an important influence in making good homes available at reasonable prices and assisting in the rehabilitation of areas in our cities which were rapidly going to seed. For some time, in cooperation with the owners of private property, we have been cooperating in the rehabilitation of neighborhoods and restoration of values. In Baltimore and several other cities extremely interesting and important work along these lines is in progress.

We rent properties at the going market rates of the community. The average rental received by the Corporation is \$29.33. As of the 1st of last month 73.1 percent of all the properties owned by the Corporation were either rented or available for rent. Of the number available for rent, only 7.7 percent were vacant. The units not available for rent include properties that are in process of being reconditioned or held vacant exclusively for sale or occupied by former owners who refuse to leave the property. The laws of many of the States at present are such that it is extremely difficult to dispossess people, no matter what the circumstances may be, and these conditions, of course, interfere with the prompt rental of a certain number of properties.

The Corporation experiences no difficulty in renting its properties at a price sufficient to meet all of its operating expenses. Up to date the operating income in excess of property expense is approximately \$5,000,000. In sections where real-estate taxes are abnormally high, the rental obtained is insufficient to meet operating expenses.

Our collection experience on rentals is very satisfactory. In recent months such collections have been running approximately 100 percent of current billings, and they have never been below 92.8 percent.

OPERATIONS OF THE THREE AGENCIES

Mr. FAHEY. It is to be noted that none of the agencies under the supervision of the Federal Home Loan Bank Board represent a burden on the Treasury. The Federal Home Loan Banks operating at a profit have accumulated substantial reserves and pay regular dividends. The Federal Savings and Loan Insurance Corporation, as I have explained, pays its own way and builds up substantial reserves. The Home Owners' Loan Corporation operates within the revenues which it collects, and a comfortable reserve is set up to take care of inevitable losses. It is impossible to say what the final losses of Home Owners' Loan Corporation will be. That will depend upon general economic conditions and the trend of real estate values over the next few years. Unless conditions become distinctly more unfavorable than at present, the final losses of the Corporation should be small, and there is a possibility that there will be no loss.

In my opinion, the most significant lesson which Home Owners' Loan Corporation teaches is that powerful financial reserve institu-

tions are essential to the maintenance of anything like economic stability. When difficulties begin to develop, if such reserve institutions are wisely administered, they can prevent the development of panic losses. When troubles begin, if honest debtors are not pressed for immediate payment but are given a reasonable time to meet their obligations, they will invariably do so if the debt is at all within their capacity to pay.

The average loan taken over by the Home Owners' Loan Corporation was more than 2 years in default on principal and interest and 3 years on taxes. Consequently these loans were hopeless when the Corporation assumed them. As a result of making over these mortgages on a 15-year basis and at a 5-percent rate, amortized monthly and without charges or commissions, hundreds of thousands of the Corporation's borrowers were able almost immediately to begin meeting their monthly payments. Approximately half of them have regularly been meeting their obligations on due date. With the others we have to make adjustments from time to time depending upon conditions, but as of May 31, 1939, we had collected 92.6 percent of all the money due us on the basis of our going arrangements with borrowers, aggregating a total of \$1,162,551,721, of which \$565,273,174 represented interest payments and the balance principal payments.

The Home Owners' Loan Corporation has in effect served as an emergency reserve operation carrying these million borrowers over a period when they could not meet the demands made upon them into a time when they were able to do so, because their loans were adjusted on a reasonable basis.

INTEREST RATES AND SERVICE CHARGES

MR. FAHEY. In connection with the discussion before your committee of interest rates on home mortgages and service charges, a question has been raised as to the influence of insurance on these rates and charges. Our experience, and I am sure it is the same with the Federal Deposit Insurance Corporation, is that insurance of accounts by stimulating public confidence enables insured institutions to obtain increasing amounts of funds at lower costs. As a result, insured institutions are thus able to make mortgage loans at lower rates, expand their operations, and render a greater service to the public. Repeated surveys have shown that savers look for safety above everything else. The reductions which have been going on steadily for several years now in dividend and interest rates paid by the savings institutions have not interfered with the accumulation of savings. Invariably the institution which is insured despite the reductions in dividend rates continues to receive savings at the same or faster rate than before. Lower rates are being paid on savings, of course, in those sections of the country where money is most abundant as compared with the areas where the accumulation of savings is limited. Rates being paid by savings and loan associations and other lending institutions range, for the most part, from 2 and 2½ percent up to 3½ percent. In some localities rates as high as 4 percent are still being paid, but the trend continues steadily downward. There is a serious question if the rate of return to savers in most sections of the country can go any lower than 3 or 3½ percent without discouraging thrift and raising a good many questions of considerable social importance.

Mr. O'CONNELL. What is your basis for that, Mr. Fahey? I am curious to know whether a reduction in the rate of return that persons might get on their money would result in discouraging thrift. I have had a general belief that people who save just save; they probably might very well save if they got no return on their money. Have you any belief on that? Apparently you believe it is necessary to give people a return on their savings in order to get them to save.

Mr. FAHEY. Undoubtedly some people would save if they didn't get any return on their money, on the "rainy day" theory, but it is to be remembered that so far as these savings institutions as a whole are concerned, the money comes in to them in comparatively small amounts, with considerable regularity. The wife takes two, three, five dollars out of the pay envelope on Saturday, and she goes and puts it in the savings institution. Much of it is with the idea, aside from the building of homes, of saving up money to send the boy or the girl to college, or for a great variety of reasons, as you know.

Now, these savers have been paid as high as 4 percent and even more when rates were higher. The rates paid have been pretty much cut the country over, and that is particularly true in the Northeastern States, where there is a greater accumulation of money, and there is considerable evidence that these people feel that getting only 2 or 1½ percent, is not enough out of their savings, while, as they look at it, the more well-to-do people in the community get a much better return on their money.

I think that the worker who struggles hard to accumulate these small sums is entitled to a fair return on his money. I think it helps from every standpoint.

Mr. O'CONNELL. I have no doubt of that. I was merely wondering whether or not it was necessary to pay what you might term a fair return to these people in order to persuade them to do the saving. It seemed to me that people would probably save regardless of the rate of return that they would get on their savings, and that the interest return merely determines where they put the savings.

Mr. FAHEY. That is partly so. Of course, it is impossible to say what would happen if you paid them nothing.

Mr. O'CONNELL. Of course it is true that in the past 10 years, we will say, the returns on the savings are showing a rather downward trend. There has been substantial expansion in savings. In other words, you have a reduction in the rate of return and yet at the same time substantially more money being saved which might indicate my belief that people just save regardless of whether they get a return on their savings.

Mr. FAHEY. That is quite true. I think one influence on that situation, particularly among people of smaller means and small savings, was that the experience of the depression frightened them a lot and I think that notwithstanding a reduced income, they have been inclined to save more in proportion than they did before.

There is another phase of this problem of savings as it involves small people, that it is also well to do some thinking about. If we reduce to too low a level the return we make to them on their savings, placed in thoroughly conservative investments, safe investments, you run the risk of again inviting them to withdraw their savings and to put them into more speculative ventures where they think they are going to get a better return.

That happened before to a considerable extent in the period from 1925 to 1929 and it can happen again.

Mr. O'CONNELL. As a matter of fact, one of the things that has been to some extent stressed before this committee is the problem of getting people to put their savings into something which would be, let me say, a little more speculative but would also help the economy by producing capital goods.

Mr. FAHEY. Well, I think for one thing——

Mr. O'CONNELL (interposing). The pendulum swings both ways. At the present time apparently savers are so impressed with the desirability of saving that it might be said to substantially amount to hoarding.

Mr. FAHEY. Well, but I think on that point there is considerable confusion about this matter of savers' savings. I think that the savings of working people in small amounts which should and do seek conservative investment, have largely gone into what is after all one of the best and safest investments there is, that is the home mortgage properly made. The saving of the well-to-do person who has investments in a variety of directions, business enterprises, securities, and so forth; and which accumulate rapidly and in larger amounts, is a different kind of saving. Having greater savings proportionately and being well protected so far as their security is concerned, they can and do ordinarily take speculative risks, that the man who saves only a few thousand dollars for the benefit of his family and pays off the mortgage on his house, so that in the case of his death the widow has a roof over her head, is in a very different class, in my judgment.

Mr. O'CONNELL. I agree, I think that is very important, but along the line I had suggested before, it seems to me that there is a group of savers who are people who have a very small amount of money, and what they are interested in, in my judgment—I am not testifying, I am just making observations—is in preserving the principal; in other words, they don't save, in my judgment, in order to get a return on what they save; they save in order to have something for the rainy day.

Mr. FAHEY. That is quite true. I would agree with you completely about that.

The CHAIRMAN. The fact is that the patrons of this system of which you are the head do not have very much risk capital. They want to hold on to what they have.

Mr. FAHEY. Well, that, in my opinion, is no reason why we should take advantage of them and not give them at least return on their money.

The CHAIRMAN. I quite agree with you.

Mr. FAHEY. You can pare it too close. At least, that is my opinion. I would just as soon depend for our venturesome capital, so-called, on those who can take a little more risk.

Mr. O'CONNELL. I think that is true. I think persons who have a small amount of savings or any amount of savings are entitled to have those savings protected. I wouldn't be inclined to agree entirely with you that in addition to the protection of the principal they were entitled as a matter of right to a particular return of 3 percent, 4 percent, or any particular percent.

Mr. FAHEY. Oh, no.

Mr. O'CONNELL. You spoke about paring it too close. I really don't know how far you would go before you had pared it too close.

Mr. FAHEY. Frankly, I would have some misgivings if we attempted to go, the country over, except in those areas where savings money is superabundant, at a point below a 3-percent rate. I think you would be experimenting a good deal then.

Mr. O'CONNELL. Admittedly we would be doing something that was reasonably unconventional.

Mr. FAHEY. To continue, the money placed in the strictly savings institutions, which has made possible most of the home building in this country, comes in small amounts from the workers. If the return to our workers on their hard-earned savings is pared too closely, there is likely to be less inclination to save and a stronger tendency to depend for security on pensions and unemployment benefits. The savings and loan associations of the country, which it is to be remembered are almost wholly mutual in character, have placed practically all of their funds in home mortgages. The savings banks and life-insurance companies, while putting a large part of their money into mortgages, also invest in bonds and other securities. Such investments yield comparatively little today, and these lending institutions generally are dependent upon a fair return on mortgages if they are to continue to pay reasonable rates to savers.

May I request to say in that connection that life-insurance companies, of course, are obliged to set aside certain reserves under the law, and they have pretty nearly all of them been obliged to reduce their dividends and have made life insurance more costly even within the last year, and that life insurance, of course, in the main, is for great masses of people of moderate means.

Mr. O'CONNELL. If I might make an observation there, it is also true, as I understand it, that the rate of return that life-insurance companies get on their mortgage portfolio is the highest return that they get on any particular type of loan that they make except policy loans, which are loans to members or the owners of the corporation. That is substantially true, is it not?

Mr. FAHEY. I think that is true. Of course, the life insurance companies that make mortgages go into only selected areas, and until recent years they were not inclined to make any loans of less than \$5,000. There were some cities and some States in which they would not accept loans at all, and that is still the policy.

The 5-percent rate established by Congress on H. O. L. C. mortgages, the terms of those mortgages, and the rates and terms of F. H. A. insured mortgages, have had a Nation-wide influence in bringing about a record-breaking reduction in interest rates on urban home mortgages. The rapid accumulation of savings has, of course, also contributed in a very large way to this result. In its work of refinancing over a million home mortgages, the Home Owners' Loan Corporation found first-mortgage rates ranging from 6 to 9 percent all over the country.

A large proportion of the mortgages which the Corporation took over had been financed by first mortgages supposedly representing 50 or 60 percent of the value of the property. In addition, in a large proportion of the cases, there were second mortgages where the actual cost ran from 9 to 12 and 14 percent. Builders and sellers customarily wrote up the selling prices of houses so that the second mortgage represented a bonus ranging from 20 percent to as much as 30 percent and more in some cases.

The CHAIRMAN. That is a very broad statement, Mr. Fahey. Are we to interpret it as meaning that your experience leads to the conclusion that in most of the cases in the past, the second mortgage was an unnecessary bonus, and therefore an unnecessary charge upon the investor in home building?

Mr. FAHEY. Absolutely; an unfair charge.

The CHAIRMAN. So when you say "customarily", you mean in a great many cases a great service has resulted from this law in abolishing a totally unwarranted burden upon the home builder and home owner.

Mr. FAHEY. It had an influence on the situation. I wouldn't go so far as to say that it was wholly responsible, because the experiences from 1931 on, on the part of these home owners, led to a great awakening. They found that, financed with a short-term mortgage and a second mortgage which had to be paid within a few years, they were faced with a demand note in the case of the first mortgage and a second mortgage which they realized did not represent value. Consequently, their reactions against the whole system the country over had been very strong.

In the period before the crash about \$500,000,000 a year went into second mortgages in this country. That is practically out of the picture today, and the whole trend is toward the long-term amortized mortgage.

Now the savings banks and some of the others still decline to make amortized long-term mortgage except where they have insured them, and then only in a very limited amount. In a number of the States in which the savings banks are important factors, the State laws have not been amended, and they are not permitted to loan more than 60 percent or take more than the first mortgages. Consequently, it cannot be said that everywhere the long-term amortized mortgage has been accepted and is in effect, but it is generally the case around the country, and it has led to a fundamental change. Of course, that type of mortgage was always made by these savings and loan associations and building and loan associations, and in many of those cases they were only for 10 and 12 years and not for a period as long as at present.

Now the trend from 12 to 20 years is common, depending upon the character of the construction and the responsibility of the borrower.

I was saying that these second mortgages invariably represented 20 to 30 percent of inflated value. The result was, of course, a total interest rate far in excess of what it appeared to be. The second mortgage has practically disappeared from present-day home financing.

The home mortgage obligations refinanced by the Home Owners' Loan Corporation represented a substantial average mark-down from the amount due on these loans. The Corporation saved its borrowers approximately \$200,000,000 by reducing the principal amount of their previous loans. To date they have saved about \$300,000,000 as a result of the 5-percent rate they now enjoy, compared with the rates they formerly paid on first, second, and too often third mortgages.

Aside from the savings of interest to Home Owners' Loan Corporation borrowers, great savings have accrued to the advantage of home owners generally. Including the Home Owners' Loan Corporation

interest savings, the sharp reduction in rates throughout the country and the practical elimination of second and third mortgages now represents total annual interest savings to home owners on their mortgages of approximately \$500,000,000. The country over, rates on home mortgages are now ranging from 5 to 6 percent. In some cases they are as low as 4 and $4\frac{1}{2}$ percent, while in some localities they run up to $6\frac{1}{2}$ and 7 percent. These rates depend upon local competition, the responsibility of the borrower, the character of the property, and the volume of mortgage money in the community. I should add that one other very important factor is the character of the territory being served. For example, in the sparsely settled areas where towns are small and properties are widely separated, the cost of servicing is higher, the local money available is less, and rates have been customarily, and still are, higher. In many such localities 10 percent and 12 percent was a common rate before this depression on first mortgages, representing a low rate. Some of the States still have laws which permit the charging of rates on first mortgages up to nearly 9 percent, but most of the States have repealed those acts.

Dr. LUBIN. Mr. Fahey, what rates do you charge the associations when they borrow from you?

Mr. FAHEY. Depending on whether it is a short or long-term loan, from $1\frac{1}{2}$ percent up to 3 and $3\frac{1}{2}$ percent.

Dr. LUBIN. And yet they take that money and reloan it for 6 to 7 percent?

Mr. FAHEY. In some cases they undoubtedly do. Generally speaking I would say it depends upon the competition in the locality. They are enabled to do it. They have to meet the market.

Mr. LUBIN. Insofar as they do it, aren't they, in a sense, going contrary to the very purposes of the system? In other words, the purpose of the system is to take surplus funds out of the big cities and make those funds available in smaller cities. If the associations are doing that, aren't they running counter to the very purposes that the associations try to serve?

Mr. FAHEY. There is a very real problem as to what may be done to meet such conditions wherever they exist, and we have no authority under the law to force these institutions to make rates. A large proportion of them are operating under State law, as you know. Like the Federal Reserve Board, and the Federal Reserve banks, they cannot say to the borrower who comes to the bank and presents good collateral, "We won't let you have this loan unless you put it out at such-and-such a rate." The same thing applies with these institutions.

It is very largely a question of local competition, the conditions in a particular area, and it is unquestionably a fact that in some cases where abnormal risk is involved in small amounts, none of the institutions will get down to a 5-percent rate. There is too much risk in it. I was going to say some further things about that. Perhaps we might return to it later if you wish.

Under present-day conditions lending institutions cannot secure higher rates on home mortgage loans than competitive conditions permit. As a result of the experiences of the past and the wide publicity which has been given to the fact that home mortgage interest rates have come down and are lower today than they have

ever been in this country, borrowers are unwilling to pay more than the fair market rate in their communities.

It is, of course, true that rates on small loans with a high percentage of risk are greater than they are on obligations which are better secured. Millions of home loans are made by institutions and by individuals in amounts ranging from \$500 to \$1,500. It costs more to service loans of this character than larger loans on more valuable properties, and the risk on such loans is greater. This is recognized by the Government in providing for loans made under title I of the National Housing Act, which involves a rate amounting to 9.7 percent. If by law it were possible to impose an abnormally low rate on mortgage loans of this character, the result would undoubtedly be that these deserving borrowers of small amounts would be unable to get any money at all from the institutions and would be obliged to have recourse to loan sharks. There is no practical difference between the rates charged by one class of institutions as compared with others.

There is no up-to-date and dependable information as to interest rates being charged on home mortgages in all sections of the country. Conditions are changing constantly, and only examination of the institutions really discloses what they are doing. A survey was made some time ago by the Federal Reserve Board of interest rates being charged by commercial banks on residential mortgages in the several reserve districts. We also made a similar survey of Federal associations with reference to which we have more regular information than from other classes of institutions. The rates quoted from the commercial banks were the "nominal" interest rates and did not include loan fees or initial service charges. The information obtained from the Federal associations, on the other hand, gave us the "effective" interest rates, which included all such fees for making the loans and all other service charges. A comparison of the rates in the 12 Federal Reserve districts showed that in 3 districts the Federal Savings "effective" rate was lower than the "nominal" rate of the commercial banks. In all of the other districts the Federal "effective" rate was approximately the same or lower than the "nominal" commercial rate. In general, however, our information indicates that in making rates on home mortgage loans the commercial banks, savings and loan associations, cooperative banks, and savings banks make about the same rates for the same kind of loans, depending upon local conditions.

There is considerable confusion in the public mind as to interest rates and a failure to understand the difference between the "nominal" interest rate and the "effective" interest rate. The real interest rate on a mortgage in most cases is not the 5 or 5½ percent which is quoted, but the actual cost to a borrower must take into consideration a brokerage fee, if one is involved, initial service fees, which are common, and usually appraisal and other fees. Since these fees are commonly absorbed in the amount of the loan, they have the effect of raising the actual interest rate to the borrower.

Competition is correcting some of the evils which have been common in the past as a result of the collection of a variety of fees in connection with the making of a loan. Where competition is particularly keen, institutions are now eliminating practically all charges.

and competition for what are referred to as "good" loans is today more extreme than at any time in our history.

There are still sections of the country in which further downward adjustments of interest rates should undoubtedly be made, but there is considerable doubt whether, at present, any real public advantage would result if, on a national basis, rates could be established below a 5- or 5½-percent level, depending upon the character of the loan.

Mr. O'CONNELL. Mr. Fahey, I don't follow you in that. Why would it not be to the public advantage if insurance rates were established below 5 and 5½ percent?

Mr. FAHEY. In the first place, these institutions, in our judgment, and as the result of our observation, must pay some reasonable return to savers if they are going to continue to get their money. Secondly, it does cost money to put a loan on the books. The smaller loans where liberal loans are being made on mere cabins that are worth eight hundred or nine hundred dollars—and there are thousands of them—are the kind the institutions don't want to bother with unless they can cover their cost and are protected against risk. Obviously the larger loan to the responsible borrower which calls for practically no servicing and where they are sure of repayment, irrespective of the character of the security, is far more attractive to the institutions.

The smaller borrower does fall down on his payment and has to be followed up constantly and the thing has to be made over, money has to be advanced for insurance, money has to be advanced for taxes to a very much greater extent than with the better class of loans. The Home Owners' Loan Corporation has about 225,000 such accounts out of the whole lot, which have to be adjusted and readjusted all the time.

Another consideration is this, on small loans and rates involved: It is a much different operation servicing loans in The Bronx or in a city like Detroit than it is out in Hallowell, Maine, or covering great distances in Senator O'Mahoney's State or in Montana or anywhere else, where sometimes the service man has to go 800 miles to have a session with the borrower and he isn't there. All of these complications come into the picture, and where there is no risk, they will make a low rate. Where there is a substantial risk, they want provision made for it, and with the radical reductions that have been made so far, we have some doubts if these rates can be gotten below a 5- to 5½-percent level; and permit these institutions to maintain the kind of management they ought to have to do business, render public service, and protect the interests of their people.

Dr. LUBIN. Mr. Fahey, what do you figure is the average cost, taking all loans large and small, for servicing?

Mr. FAHEY. Of course, in the first place there just isn't any such figure, Doctor.

Dr. LUBIN. After all, they do average their total cost. They figure it is 1 or 2 percent.

Mr. FAHEY. They do, but they all guess about it. Practically, there are hardly any of them that know. They don't keep records very much on that basis.

Dr. LUBIN. So that really it may be a lot less than they say it is.

Mr. FAHEY. It may be a lot less than they say it is, or it may be a lot more. Take for example, as I recall it, a representative of one of

the institutions suggested a half of 1 percent. I don't believe there is an institution in the country that is servicing on the basis of a half of 1 percent, if it take into consideration its overhead and a lot of other things.

R. F. C. on the insured mortgages which it has taken over allows three-quarters of 1 percent, and those are on new properties and on newly made mortgages, recently appraised, therefore, related to present-day market values. It is a good deal different when you are dealing with other types of property.

Take H. O. L. C., on the average our houses were 17 years old when we took them and are older than that now. And there is another element that comes into the business of handling small loans; that is, for the protection of the security the fact that the lender is so frequently forced to go back in and put up money to fix the roof, to make over the plumbing, and something else, because the borrower can't do it.

Mr. O'CONNELL. The real anomaly, it seems to me, in the question of interest rates is the cost of money. There may be variations in the cost of servicing loans, but whatever it is, that is an absolute amount that must be obtained. In other words, whether it is one-half of 1 or 2 percent, you can't get around that. But it seems to me the real substantial thing in determining how much interest rates should be is determining how much you should pay for the money.

Mr. FAHEY. That is quite true, but what you will have when you get it depends upon competitive conditions. That is illustrated by what H. O. L. C. and F. H. A. have done, the influence they have exerted, but as I have explained, it isn't F. H. A. and H. O. L. C. alone, it is the accumulation of a lot of money.

Mr. O'CONNELL. It is true there is a tremendous amount of money available, and your view is that in general, competitive conditions have resulted in lowering the interest rate.

Mr. FAHEY. Oh, yes; as well as the rest of it. We know that out of H. O. L. C., because the institutions were in an uproar about it at one time, that all the lenders that weren't in trouble proceeded to clamp down on them and say, "If these rates can be made to people who just aren't able to pay, what right have you got to charge me, who is able to pay?" It undoubtedly had a widespread effect, there is no doubt about it.

We constantly find that where some local institution has brought the rate down to let us say 4 percent—that happens in some cases—the other institutions promptly meet it. They have to or they don't get the business, that is all.

Dr. LUBIN. How far is this servicing cost a function of the size and efficiency of the individual association? I have in mind the British experience where they have consolidated their associations into relatively few big units, and they have of course a large number of small units, too. May not part of this high servicing cost be the result of having too many small associations?

Mr. FAHEY. It is hard to answer that, Dr. Lubin. In many sections undoubtedly there are too many small institutions and they are gradually being eliminated through consolidation and merger, and in some cases liquidation because they are unable to keep up with the pace.

On the other hand, there are small communities where the small institution of \$100,000 or \$200,000 can and does render a service that nobody else will render.

Dr. LUBIN. And probably more efficiently than anybody else could.

Mr. FAHEY. Oh, yes. And some of them not only talk about the rates they pay. Some of them, inspired by the cooperative idea, have devoted an amazing amount of time to the management of these things without a cent of compensation and accumulated reserves and pay 4 percent, and they are mutual in character and the people are borrowing the money and they don't complain if they pay 6 percent. Not only that, but in some of these communities where rates have been scandalously high in the past as compared with the East and the North, the fact that they get 6 or 6½ or even 7 percent today, they regard as a great boon. They just do, there is no doubt about it. They think that a great reduction has been made, and of course it has. As a matter of fact, it is the most significant thing that has happened in connection with the whole housing matter.

Dr. LUBIN. Do you have any authority to control the methods of charge? For instance, I understand some of these associations not only charge you an interest rate but make you pay dues in addition, and other devices of that sort. Do you have any control over such practices?

Mr. FAHEY. A lot of that sort of thing has disappeared. I wouldn't say it has disappeared entirely, but there again the competition of these Federals has set a pace, because they make nothing but so-called direct reduction loans as against the old-time sinking-fund loan which concealed a lot of charges which the borrower didn't understand. You cannot completely condemn a sinking fund loan because of course borrowers on such loans get the benefit of the return on the stock they hold, but a lot of incidental evils of one sort and another which prevailed in this mortgage lending business and among all classes of institutions, too, have just disappeared pretty rapidly in the last 5 or 6 years. They are not all out yet by any manner of means, in my judgment, and we are far from having a national mortgage system which compares to that of Great Britain, for example, and that could be much better than it is. But public agitation, a lot of education on the subject, a greater interest in housing than this country has ever seen, are all having their influence, and perhaps that is the better way to work it out. In any event, with 48 different jurisdictions, it is a pretty tough job to clean up some of these situations by law.

We do, while there are limits on the authority of the Federal home-loan banks, limits which ought not to exist, in my judgment, yet we have certain authority under the act which we are able to exercise in effecting discipline and eliminating bad practices which show up as a result of our examinations.

We ought to have more authority in that respect but of course the minute it is suggested, there is raised the cry of bureaucratic authority, and all that sort of thing.

There has not been the cooperation between State supervisory authorities and the national authorities which ought to prevail. That is another one of those things that we all understand. Gradually they work out, but it takes time.

WHERE HOME OWNERSHIP SAVINGS CAN BE MADE

Mr. FAHEY. As I have indicated, it may fairly be estimated that the home owners of the United States are saving about \$500,000,000 a year as a result of the reduction in interest rates on home mortgages and the readjustment of the mortgage structure which has taken place since 1933. It is extremely doubtful if much more can be saved in this direction which will contribute to progressive housing development in the near future. The interest savings to which I have referred are practically the only home ownership savings that have been effected in recent years.

The most promising direction in which additional savings may be made, is through a reduction in the cost of the home itself. This applies particularly to homes which may be available for from two to four thousand dollars. The information which has been presented to you by Dr. Lubin demonstrates that more than half of the nonfarm families in this country cannot afford homes that cost more than \$4,000. Other studies which have been made indicate that the ratio may be as much as 65 percent. Nearly every student of the problem agrees that the great market, the big opportunity for home construction lies in making a really worth-while product available to these millions of families which cannot afford to occupy homes costing more than two to four thousand dollars. I do not think there is much occasion to worry about families with incomes from \$2,000 up. The man who is really able to pay for a house costing five to six thousand dollars and above can get all the money he needs to make the purchase on reasonable terms and is well taken care of. The great problem is that of providing better housing for the lower income groups which are able to pay for their homes and do not need public help. It is true that considerable progress has been made by the material people, the construction industry, and the architects in providing better houses in the field to which I have referred. The Federal Home Loan Bank Board for more than 2 years has been working with the lending institutions, the American Institute of Architects, and the Producers' Council, which represents the Nation's leading material manufacturers, in a general attack upon this problem.

I ought to digress to say, too, that, as you undoubtedly know, the lumber manufacturers and other material people have combined in building all over the country some two thousand demonstration homes during the last 2 years in this particular field. The Department of Labor only recently issued a bulletin on the actual costs of a group of eight such homes right here near Washington.

It is as important to the lending institution as it is to the home buyer that a house should be well built and well planned.

The character of construction of a home from the foundation up is a factor of vital importance so far as the home owner is concerned. First cost is not the only consideration. The average home buyer gives no thought when making a purchase, to annual maintenance costs and is usually insufficiently advised as to the real character of construction. Invariably he finds within a year that he is confronted with unforeseen maintenance and repair expenses. These expenses recur from year to year.

I might say in that connection the experience of the Home Owners' Loan Corporation in encountering the shoddy construction all over

the country was and still is one of the most difficult problems that we have had to deal with, despite our general command of raw materials and all the rest of it, there just isn't any doubt that over the last quarter of a century the general character of home building in this country has been far behind that in the older countries with more experience. The extent to which these houses promptly began to crack up within 2 or 3 years is pretty alarming.

All this means, especially to the family of moderate income, that it is important to provide for protection against abnormal future costs through architectural supervision and really effective inspection while the house is being built.

The cooperative effort to which I have referred and which has been developing steadily during the past 2 years is called the Federal Home Building Service Plan. It provides for fixed and very reasonable fees on the part of the architects in the cities where the plan operates, the cooperation of a number of the lending institutions, the contractors and material manufacturers in combined effort to assure proper planning, effect all economies possible and secure the production of a thoroughly inspected sound house. At present about 300 lending institutions in 70 communities have been approved to operate the plan; 400 architects have been approved to render advisory and supervisory service; and 400 small-home designs, undoubtedly the most comprehensive collection yet made, have been completed. This cooperative attack on the problem of better houses for those of moderate means is still in the pioneer stage. In some cities, however, it has gone far enough to offer much encouragement. One large city in the Middle South has built 150 homes of a type far superior to any heretofore available in the same price class. In another more than 100 houses have been erected with corresponding results. The American Institute of Architects, the Producers' Council, and the lending institutions, with the assistance of the Federal Home Loan Bank Board, are now concentrating their efforts on this type of work in six definite areas, and as results warrant, the plan may be extended.

The Federal Housing Administration has also made available and encouraged the development of new plans for small houses. It cannot be said, however, in my judgment that rapid progress is being made in the solution of the problem of better houses for the families of \$2,000 annual income and less. I am convinced that there is a great opportunity for development in this direction when private industry, represented by the lending institutions of all classes, the architectural profession, the material producers, contractors, and labor, really get together with the Government agencies and exert persistent pressure to produce a better house than this country has yet seen for \$4,000 and down as low as \$2,000.

It is doubtful if we can depend upon the application of mass production methods in the construction of houses in this country and expect to fill the needs which obviously exist. In Great Britain the large construction companies are able to effect great savings by building 500 to 2,500 or 3,000 houses at a time. This is due in part to the conditions created by population congestion. Similar opportunities develop in the neighborhood of our large cities, but the fact is usually overlooked that most of our home construction for years has been in the smaller communities of the United States. Out of approximately 350,000 family units provided in 1938, 260,000, or 75 percent,

were single-family dwellings, and only 65,000 of these were built in cities having a population of 100,000 or more. About 195,000 were constructed in cities and towns of 50 to 100,000, and of this number about two-thirds or 164,000 were built in towns of less than 25,000 inhabitants. In these classes of cities and towns, it is seldom possible to build two or three hundred houses at a time. They are constructed from year to year in smaller numbers and mostly by small contractors. To develop this field means a new approach and new methods.

Aside from new construction, a sound national housing program should contemplate greater attention to the rehabilitation of existing but outmoded homes. Irrespective of the progress we may make in providing new and better homes on a more attractive basis, used homes will always represent good housing to a large number of families. Very often the large but old-style house which is no longer attractive to families of very substantial income becomes available to the large family with an income of but \$2,000 to \$2,500 per year, when an entirely new but smaller house would wholly fail to meet the family needs. There are many opportunities for improving the condition of homes of this type at moderate expense and as a result providing excellent housing which has no style appeal but does provide highly satisfactory living quarters.

There is one handicap to the rapid expansion of residential construction in this country which it is not wise to disregard—that is, the existence in many localities of an overhang of real estate in the possession of lending institutions which must be disposed of within a reasonable time. If there is too much new construction undertaken in areas where the surplus of houses to be sold is abnormally large, it may invite a radical marking down of the prices of old houses which will have a tendency in turn to affect the value of the new construction. The encouragement of new housing is really a problem which must be dealt with on a community basis if a balance is to be maintained between new housing and old.

A good many changes have taken place in the demand for housing which need to be watched carefully in our search for better homes at lower costs and in the making of loans on a reasonable and safe basis. In the neighborhood of most of our cities of substantial size, the extraordinary improvement of our highway systems in recent years, together with the production of better automobiles at lower prices, is encouraging more and more people to get out of the crowded cities and live outside where land is cheaper, air and light are better, and the children are safer. The cost of first-class used cars has been reduced to a level where families of comparatively low income can now acquire them and live outside the cities when such a thing was impossible only a few years ago.

The increasing trend toward better homes on the outskirts of our cities is very likely to bring unexpected changes in our housing development during the next 10 years.

In the United States we have so long neglected agreement on a common-sense national policy with reference to housing, that a good deal of planning will have to be done before we can attain the progress we would like to have. There are plenty of reforms in the appraisal of property, in the elimination of unfair and unnecessary brokerage fees, in the costs of title examination and of foreclosures, in the amendment of obsolete State laws, all of which affect the costs and

the safety of home ownership, which need attention. These weaknesses cannot be remedied except through the leadership of the Federal Government, but Government effort cannot be fully effective without the unreserved support of the forward-looking leaders of labor, industry, and the professions whose cooperation it is essential to have.

MR. O'CONNELL. Mr. Fahey, there has been a substantial amount of testimony before this committee to the effect that an expansion in the field of residential construction is one of the most hopeful areas that we may look to. Would you care to make any general observation as to whether or not in your opinion there is a substantial room for expansion in that field and particularly with reference to whether or not it would in your opinion adversely affect the value of existing properties?

MR. FAHEY. I think there is a very large opportunity. There is a very obvious and very substantial shortage of homes as a result of our practical cessation of building from '33 on. But, as I have suggested, I think it has to be carefully developed, or else it is easy to come a cropper. One of the greatest evils in the home-building field in the past has been over-speculation. Speculation in real estate in this country has been just as corrupting in its effect as over-speculation on the stock exchange, but it never attracted the same attention because it wasn't being advertised every day. It was not so conspicuous. We have had spectacular breaking up of real-estate booms, as we know, in some sections of the country in the past, and it is very easy to get some of those going again, especially when speculative builders and real-estate operators have been starving so long.

To deal with it more concretely, if you have a city with abnormal vacancies of property, rental property, and an abnormal number of homes for sale, if the speculative builders are encouraged to go into new developments on a substantial scale, you are pretty sure to have trouble on your hands within a comparatively short time. It is not easy to say how much real estate in the possession of institutions and individuals is overhanging the market in the country today, but it is a fairly safe guess that it runs somewhere between three and four billions of dollars.

One thing about the whole situation which is frequently overlooked is the fact that a large proportion of the home mortgage lending in the country is that of individual lenders, not the institutions. Of course, so far as the individual lender is concerned, the only control over his activity is the market situation. Of course if he sees an opportunity to make some money out of speculative development he isn't very much concerned unless it is a prospect that it will react on his own investment; he is not very much concerned about what the community situation is.

DR. LUBIN. Mr. Fahey, I don't want to keep you beyond your train.

MR. FAHEY. That is all right, I can stay until half past 12.

DR. LUBIN. I think you have raised a very important question, namely, how far should it be the function of the Government to protect equity values. You mention the fact that you feel that we ought to be very careful about the expansion of housing because it might interfere with the value of existing properties and then you go on to say, however, that a boon has been created for the American people by

making it possible to buy low priced used cars so they can live out in the country. Now if the automobile industry had worked on the theory, let's keep down the production of new cars because it will interfere with the sale of used cars, you wouldn't have had new cars. Why shouldn't it be the function of government to protect the equity values of people who bought commodities in '27, '28, and '39 at high prices? In 1933 and '34 their equities had either been wiped out or had been written down a lot. In the case of the home owner the Government says: "We will forget the economic factor as a social phenomenon here; people who own homes should be protected in maintaining those homes and instead of losing them we will make it possible for them to keep them and make these payments in the future." In other words, they went bankrupt in the sense that they were not going to pay for these properties, it was just a question of making a legal requirement of making payment on a certain date, yet I feel that there is a very definite question of public policy relative to the production of new things at lower prices which in effect of course automatically cuts the price of existing things.

Take the case of your own organization. I noted that you said you turn your properties over to agents, but in fixing the price on them you take into consideration existing values. Now should it be the function of the Government to say to a real-estate agent; "Here, you take this property; although you can sell it at a profit to the Government, we are going to let you hold it off the market until you get a price which will make it possible for you to protect other real estate you have to sell."

Mr. FAHEY. Of course we hardly do that. What we say to him in effect is, "We wish to get the fair market value of this property." Now, if we once adopted a program of selling these properties below their worth in the market, I suspect that we would invite considerable criticism from the public and from Congress. It is very easy to do a lot of that if we don't exercise care.

Dr. LUBIN. I appreciate that problem that you have to face. I am looking at it from the economic aspect. I am forgetting the Congress at the moment.

Mr. FAHEY. All right; I take it from the economic aspect for a minute, assume that the Government didn't step in here in the case of the Home Owners' Loan Corporation. Now, in the first place, if the H. O. L. C. had not stopped the avalanche of foreclosures and the marking down of home values, it not only would have been obliged to take over and refinance the whole six billion, as was originally applied, but a lot more of the eighteen billion that was outstanding at that time.

There is no knowing where it would have stopped, because you progressively undermined the solvency of these savings institutions and the banks all over the country. Remember it wasn't savings banks and savings and loans associations alone, but it was insurance companies and commercial banks that this corporation took over, great volumes of mortgages. Something more than half a million was out of the commercial banks. Now, if that decline had not been started, if the country had adopted the theory that everything should go to the bottom and then nature will take care of itself, why, maybe we wouldn't be worrying about good houses that ought to be produced for \$4,000.

Dr. LUBIN. The thing I had in mind was this: We have a purpose here. We want to protect, tide over people who own their own homes. There is a social purpose there. We feel in a society such as ours a man who has bought a home should be protected for keeping that home just because over a period of years he can't meet the interest or amortization and so we are tiding him over this period; but is it our function through that process to protect the speculator who bought property not to live in but to make a profit on?

(Representative Reece assumed the chair.)

Mr. FAHEY. Of course you forget now the fundamental of the whole question. It affects not only housing, but a lot of other things.

Dr. LUBIN. I am not saying this in criticism of the Home Owners' Loan Corporation; I am raising a question of how far the Government should go. Should it think in terms of getting as quickly as possible within reasonable limits more and better housing for those people who can't get it now at economic terms? Should it make its main policy the stimulation of an industry that will add more to employment than any other single industry can? Or should it take these into consideration, say, but there are these other factors, we must protect these other equities. That is a problem we have got to answer.

Mr. FAHEY. Of course you wouldn't expect me to express anything except a purely personal opinion. I am not undertaking to speak for our Board, but personally I would say, "yes." Frankly, I do not believe that the solution of many of the difficult problems involved here will come except under the leadership of the Federal Government, but as I have suggested in my statement, in that process I think that it is going to be necessary to enlist the enthusiastic cooperation of a great variety of interest because there are so many phases of this problem and so many people involved.

I say that the particular way of attack is the \$4,000 home and less. There you are not faced with as much competition so far as real-estate overhead is concerned for one thing, and there is a great mass market that if it can be reached means something. They found a way to reach it in Great Britain. We haven't done it here and we do encounter problems because we have these thousands of small operators to deal with in small communities, and right there unemployment in the smaller communities proportionately is just as severe as it is in the larger cities, generally speaking, but my opinion is that if we go further forward working together, I believe that some really interesting things can be accomplished.

I would like to see the Government itself have greater latitude to go out and build and experiment with some houses in different parts of the country, in different kinds of materials. Of course there you may raise criticism and objection again as to Government interfering with private industry, but my own belief is that a way can be found to establish thoroughgoing cooperation without arousing too many antagonisms.

Dr. LUBIN. One further question I would like to ask. In case you have been talking entirely today about home ownership, that is the type of construction you are particularly interested in through your organization. Do you have any suggestions as to what we might do to stimulate the construction of rental housing which apparently

is one of the dire needs of the country in view of the fact that half of our workers live in rented homes?

Mr. FAHEY. Of course, there is undoubtedly a need for additional rental housing in some sections and I think that the contracting industry and the real-estate people, where the need obviously exists, are giving it considerable attention. I think, however, we should bear in mind that a large part of the rental housing of the country, particularly outside of our large cities, is in smaller units and is old housing, what was formerly residential property that now becomes rental property because the former owner has moved somewhere else. A lot of that is going on, there is a lot of rehabilitation and modernization of structures to meet present-day needs and rental conditions, but when it comes to the community where families are well settled and their prospects of remaining are pretty well assured, if home ownership is on the right basis of cost, it is preferable to rental for such workers, and even if the job changes and the worker has to go somewhere else, if he is paying no more than rent meanwhile, he does have an equity to dispose of.

Acting Chairman REECE. Any other questions? The committee very greatly appreciates your appearance, Mr. Fahey.

Mr. FAHEY. Mr. Chairman, I simply want to express my appreciation to the committee for its attention in allowing me to take so much of your time.

Mr. O'CONNELL. I am sorry you had to miss the 12 o'clock train, because we were so interested in what you had to say.

Mr. Chairman, I had hoped that at this point we would have Mr. Stewart McDonald, the Administrator of the Federal Housing Administration, to testify on the activities of that organization. However, I have just been informed that he will not be able to testify before the committee today. That I think is very unfortunate because almost every day during the course of the hearing the Federal Housing Administration has been mentioned, and it would have been very helpful had we been in a position to get some first-hand information about the actual operations of that organization. However, he cannot testify, and I would suggest that we adjourn until after lunch, at which time Mr. Nathan Straus, representing the United States Housing Authority, will tell us something about the activities of that organization in the housing field.

Acting Chairman REECE. The committee will stand in recess until 2:30.

(Whereupon, at 12:20 p. m., a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:40 p. m. at the expiration of recess; the chairman, Senator O'Mahoney, presiding.

The CHAIRMAN. The committee will come to order.

Are you ready to proceed, Mr. O'Connell?

Mr. O'CONNELL. I should like to call the only witness that we will have this afternoon, Mr. Nathan Straus.

Mr. Straus, would you mind stating your full name and present address? Also your present position, for the record?

Mr. STRAUS. Nathan Straus, the Shoreham Hotel, Administrator of the United States Housing Authority.

STATEMENT OF NATHAN STRAUS, ADMINISTRATOR, UNITED STATES HOUSING AUTHORITY, WASHINGTON, D. C.**ACTIVITY OF UNITED STATES HOUSING AUTHORITY IN PROVIDING SUBSIDIZED HOUSING FOR LOW-INCOME FAMILIES**

Mr. O'CONNELL. Briefly, Mr. Straus, what is the United States Housing Authority?

Mr. STRAUS. It is a permanent Federal corporation set up in 1937 by the United States Housing Act of 1937, approved by the President on September 1, 1937. In the words of its title, the act is—

to provide financial assistance to the States and political subdivisions thereof for the elimination of unsafe and insanitary housing conditions, for the eradication of slums, for the provision of decent, safe, and sanitary dwellings for families of low income, and for the reduction of unemployment and the stimulation of business activity.

Speaking generally, what are the powers of the United States Housing Authority?

The U. S. H. A. makes repayable loans to local public-housing agencies, called local housing authorities, to help them construct local low-rent housing projects and to clear slums. It makes annual grants-in-aid, annual contributions to help the locality bring rents on the completed projects within the financial reach of families in the lowest income group now living in slums or substandard housing. The U. S. H. A. cannot itself construct housing projects.

Mr. O'CONNELL. You refer to local public bodies. I take it those are local housing authorities. What are they, generally speaking?

Mr. STRAUS. A local-housing authority is a public corporation organized under a State law with broad general powers to undertake a local low-rent housing and slum-clearance program. A local authority has no power to tax, no power to pledge the credit of the city, directly or indirectly, or to exercise police or ordinance-making powers. A local authority is usually administered by a group of 5 individuals appointed by the mayor, sometimes there are 7, but the local authority plans, constructs, and operates its own projects. It borrows the money to build its projects, and manages and rents the projects after they are built, and of course owns the project. The committee may be interested in knowing there were 46 local housing authorities on September 1, 1937, and now there are just under 250. Additional authorities are rapidly coming into existence due to the recent passage of enabling legislation in many States and a long line of favorable judicial decisions.

Mr. O'CONNELL. In how many States is there legislation authorizing the creation of housing authorities?

Mr. STRAUS. At the present time there are 38 States, and there are 10 States that have no legislation. Shall I read that list of those that have none?

Mr. O'CONNELL. You mean the list of states that do not have it?

Mr. STRAUS. Yes.

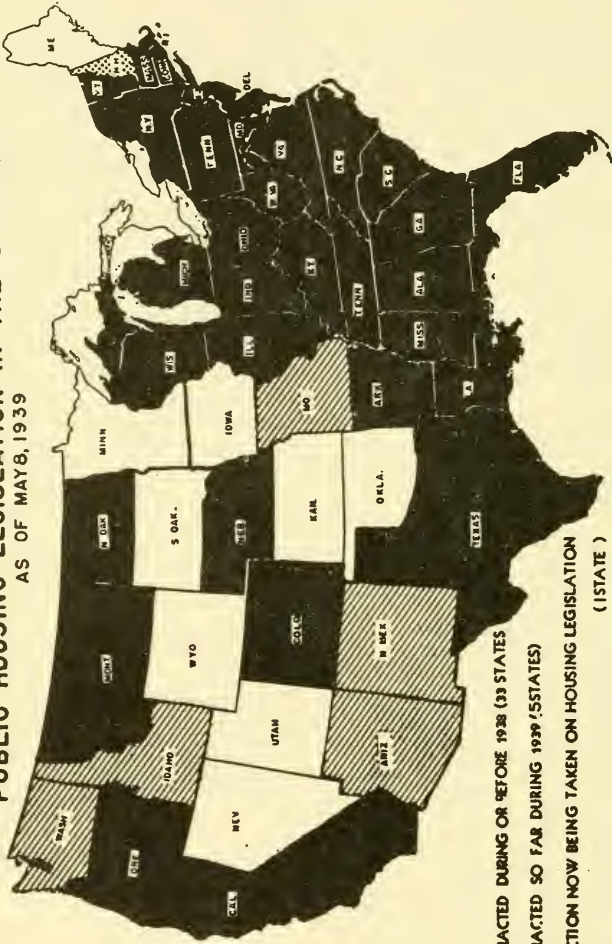
Mr. O'CONNELL. I think it would be helpful.

Mr. STRAUS. Iowa, Kansas, Maine, Minnesota, Nevada, New Hampshire, Oklahoma, South Dakota, Utah, Wyoming. This map that I am now presenting to you illustrates this picture.

Mr. STRAUS. Should I read the legend? Black is enacted during or before 1938, 33 States; red is enacted so far during 1939, 5 States. The

EXHIBIT No. 930

PUBLIC HOUSING LEGISLATION IN THE STATES
AS OF MAY 8, 1939



■ ENACTED DURING OR BEFORE 1938 (33 STATES)

▨ ENACTED SO FAR DURING 1939 (5 STATES)

▤ ACTION NOW BEING TAKEN ON HOUSING LEGISLATION
(1 STATE)

□ NOT HAVING OR NOT NOW CONSIDERING LEGISLATION (9 STATES)

dotted one is action now pending. I think it is only New Hampshire, and the white ones are the States of the list I just read that have no housing regulation.

Mr. O'CONNELL. Have you a copy of that chart?

Mr. STRAUS. Yes, sir.

Mr. O'CONNELL. I should like to offer this chart for the record.

The CHAIRMAN. It may be received.

(The map referred to was marked "Exhibit No. 930" and appears on p. 5408.)

Mr. O'CONNELL. I take it that the U. S. H. A. program is being carried on on a national scale. Does it reach only large communities?

Mr. STRAUS. No, sir; our program is designed to and does reach both small and large communities. Of the first 156 towns and cities having earmarkings or loan contracts, 26 were communities with a population under 25,000, 38 were communities between 25,000 and 50,000, 27 were communities from 50,000 to 100,000, 43 were communities with a population of 100,000 to 300,000, and 22 (balance) were in communities of over 300,000; that is, in summary, more than 40 percent of the participating cities were thus under 50,000 population.

Mr. O'CONNELL. In terms of money expenditure, I take it the percentage would not be so high?

Mr. STRAUS. No; in terms of percentage of dollars the larger cities would show up better and the small ones less well.

Mr. O'CONNELL. Does the U. S. H. A. do anything with reference to rural housing?

Mr. STRAUS. In the original act there was a provision that we could do rural as well as urban housing, but up to the present date we have been unable to get into the development of housing for farm families in the lowest income group. To meet that deficiency, the committee may know, the Senate has already passed, and the House Committee on Banking and Currency is at this very moment considering, a bill which would, in addition to increasing our program, direct us to undertake a comprehensive program of rural housing with the aid of the Secretary of Agriculture and the Department of Agriculture.

Mr. O'CONNELL. Your operations, as I understand it, involve making loans to finance this, and making annual contributions to aid in the operation of them to bring the rents to a low level. How much money, under existing legislation is available for loans?

Mr. STRAUS. We have 800 million available for loans, theoretically, but, practically, the limit has become \$650,000,000, by reason of the shortage of adequate funds for grants-in-aid or annual contributions, which has in effect constituted the real ceiling. We have really practically put in use a little over \$650,000,000.

Mr. O'CONNELL. Let me see if I understand that. You mean that the amount of money that is available to your organization for annual contributions is the determining factor in arriving at the amount that you actually—

Mr. STRAUS (interposing). Correct.

Mr. O'CONNELL. What is the status? You say as a practical matter there are about \$650,000,000 available to you. What is the status of that \$650,000,000?

Mr. STRAUS. Let me see—now, we have 170 loan contracts. Total Federal loans call for four-hundred-and-sixty-three-million-five-hundred-thousand-and-odd dollars for 255 projects, located in 122 cities and

3 counties in 27 States, and also in the District of Columbia, Puerto Rico, and Hawaii. In addition the sum of a little over \$200,000,000—\$202,800,000—has been committed and will shortly be translated into loan contracts. We have under actual construction—this morning I checked it—2,000 units, and about 10,000 additional units are going into construction every month.

Mr. O'CONNELL. Do I understand you to say 10,000 units are going in each month?

Mr. STRAUS. Each month, yes; a little more than that.

Mr. O'CONNELL. Last week Mr. Davison testified before the committee and, in passing, as I recall it, he indicated it was his belief that U. S. H. A. constructed only multiple dwellings.¹ Is that accurate?

Mr. STRAUS. No, sir. That is a very common misconception. I am afraid Mr. Davison didn't know the facts. There are 55 projects under construction, as I just said. Of these 55, only 5 consist exclusively of multifamily dwellings of 3 stories or more, and of these 5 projects, 3 consist of exclusively of 3-story apartments, and 2, in New York City, consist of 6-story apartments. The whole balance is predominantly of the nonapartment type, most of it being 1-story and 2-story row houses or flats. Our experience proves that in most communities it is more economical and more efficient to use individual row houses, either 1- or 2-story houses, and the bulk of the program is that.

Mr. O'CONNELL. How many projects have you that are open and ready for occupancy at the present time?

Mr. STRAUS. Only five occupied. Shall I read off the cities? Four cities, two in Buffalo, one in New York, one in Jacksonville, Fla., and one in Austin, Tex. I might remark parenthetically there, we have just gotten to the stage where projects are commencing to open and that will go more rapidly now.

Mr. O'CONNELL. Those are the first projects opened under the program initiated by the United States Housing Authority. I take it there are some projects which were constructed as Federal projects or were financed by the Housing Division of P. W. A., prior to the advent of the U. S. H. A., which are in operation.

Mr. STRAUS. That is right.

Mr. O'CONNELL. Do you know how many of them there are?

Mr. STRAUS. Fifty-one of them.

Mr. O'CONNELL. How are those operated as a general proposition?

Mr. STRAUS. Those are operated either by the U. S. H. A. or a certain number of them are leased to the local authorities which in turn operate them.

Mr. O'CONNELL. Does that mean that to the extent you are able to do so, U. S. H. A. makes an arrangement with the local housing authority pursuant to which they lease the project to the local housing authority for operation?

Mr. STRAUS. That is right. We are directed by the act to lease them or sell them.

Mr. O'CONNELL. So as a matter of legislative direction you are required to take advantage of local housing authorities if they are in existence?

Mr. STRAUS. That is right, since it is a decentralized program.

¹ Supra, p. 4991.

Mr. O'CONNELL. What are the rents and income levels of the tenants of the five projects that you refer to as being open now?

Mr. STRAUS. In Austin the average monthly shelter rent for a family dwelling unit is \$6.59 and the project serves families with average annual incomes of from \$400 to \$300.

Mr. O'CONNELL. \$6.59?

Mr. STRAUS. \$6.59 for a house; that is shelter rent per month. In Jacksonville, Fla., the average monthly shelter rent per family dwelling will be \$10.58, and the project will serve families with average annual incomes of from \$750 down to some as low as \$500. In Buffalo, the average monthly shelter rent for a family dwelling (there are two projects) will be \$13.25 a month.

The CHAIRMAN. What is the significance of the term "shelter rent"?

Mr. STRAUS. In an effort, Senator, to have our figures on a comparative basis with what these families pay in the slums, it was found essential to include only the same items as are included in the slums. If a family pays a rent of \$10 a month in the slums, 9 times out of 10 that does not include heating, it does not include electric light, it doesn't include fuel for cooking in many cases. In order to get our figures on all four with theirs, this term was coined before I came to Washington, "shelter rent," meaning rent without utilities.

The CHAIRMAN. That is what I thought. Those items which you have just illuminated are ordinarily not provided and are not available in the slums.

Mr. STRAUS. Right.

The CHAIRMAN. But they are available on these projects?

Mr. STRAUS. They are available, although sometimes not actually provided; in many cases, for instance, Senator, we will provide a stove to heat it but we won't provide fuel. The difference is that when the family was in the slums they bought the coal retail by the bag and in these housing projects we try to make arrangements to have the local authority obtain it through the city at wholesale rates and then sell it to the tenant at the same price.

The CHAIRMAN. Well, when these projects are constructed do they not include lighting facilities?

Mr. STRAUS. Oh, yes; they do.

The CHAIRMAN. They are wired for electricity?

Mr. STRAUS. Always.

The CHAIRMAN. And they are fully supplied with water?

Mr. STRAUS. Yes.

The CHAIRMAN. Is the water rent included in the shelter rent?

Mr. STRAUS. No; it is not.

The CHAIRMAN. The shelter rent does, however, include the availability of electric light.

Mr. STRAUS. Right.

The CHAIRMAN. But does not include the payment for the light.

Mr. STRAUS. Right.

The CHAIRMAN. Do the occupants of these homes pay anything in addition to shelter rent to the authority, the local authority, from which the apartment is rented?

Mr. STRAUS. They pay the price of whatever utilities they receive from the project, and, in many cases, that means they pay the cost of all utilities.

The CHAIRMAN. What is the average rent paid by the occupants of these houses?

Mr. STRAUS. We would have to add, in each case, the cost of the utilities, a dollar and a half to \$2 per room per month, per dwelling. I would say that was adequate in the South, in the North, pretty skimpy.

The CHAIRMAN. A dollar and a half a unit per month?

Mr. STRAUS. I think that is low. I think I would like to qualify that, Senator, by saying that it is a dollar and a half to \$2 a month average in the South, where the needs of heating are small and it may run up as high as double that in the cold cities of the North.

The CHAIRMAN. What is the average shelter rent?

Mr. STRAUS. Varying from a low of \$6.59 in Austin to a high of \$17 in New York City for an apartment for a month.

The CHAIRMAN. In New York City would an addition of \$4 include all of these other items?

Mr. STRAUS. I want to be careful about getting that. Yes, that is about right.

The CHAIRMAN. Very well.

Mr. STRAUS. Let me point out, too, Senator, as possibly bearing directly on that, that in calculating the incomes which the families must have in order to enable them to live in these projects, we do include utilities in addition to shelter rent. Do you follow me?

May I put into the record the Red Hook project?

The CHAIRMAN. Proceed.

Mr. STRAUS. In Buffalo, the average monthly shelter rent for a family dwelling in the two projects will be \$13.25. The project for white families will serve those with average annual incomes estimated at \$850, with some as low as \$600; and the project for Negro families will serve those with annual incomes estimated at \$750, with some as low as \$500.

In the Red Hook project in Brooklyn the average monthly shelter rent for a family dwelling will be about \$17, and the project will serve families with average annual incomes estimated at \$950 with some as low as \$700.

Thus, at the first five projects for which actual rent schedules have been set, the average monthly shelter rent for a dwelling will range from a low in Austin of \$6.59, serving families with average incomes of \$400, to a high of \$17 in New York, serving families with average annual incomes estimated at \$950.

Mr. O'CONNELL. Mr. Straus, how many families will be rehoused in the program now authorized?

Mr. STRAUS. Our best estimate is about 160,000 families.

Mr. O'CONNELL. I take it that your present program does not begin to meet the needs of all the families in the lowest-third income group.

Mr. STRAUS. Surely that is correct. The \$800,000,000 under our present act is really restricted to \$650,000,000, and that, of course, is a fair commencement of the attack on the Nation's slums. As the committee may know, the Senate has passed, and the House Banking and Currency Committee is now considering, a bill which would authorize us to make loans for an additional \$800,000,000 and to enter into annual contributions, contracts calling for an additional \$45,000,000 per year.

Mr. O'CONNELL. What is the total gross cost to the Federal Government of the present and expanded U. S. H. A. program for both rehousing and slum clearance?

Mr. STRAUS. At the present time?

Mr. O'CONNELL. Yes.

Mr. STRAUS. The cost to the Federal Government of the present U. S. H. A. program at this time is absolutely nothing, except for administrative expenses. The annual contributions which represent the only other cost to the Government are not made until the projects are available for tenancy, and as there haven't been any available for tenancy, there haven't been any. As a matter of fact, the Budget this year includes only \$5,000,000 made available by the recently approved Interior Department Appropriation Act for annual contributions for the fiscal year ending June 30, 1940. After that, when the program is in full swing, the only gross cost to the Government of the present program is the annual contributions for which the maximum gross amount is \$28,000,000 a year, and the only gross cost of the expanded program now pending would be \$45,000,000 a year.

Mr. O'CONNELL. If I understand you correctly, the total cost of the program is the sum total of the amounts of the annual contributions that you refer to.

Mr. STRAUS. That is the gross cost. The net cost is actually considerably less because of the substantial interest problem.

Mr. O'CONNELL. I am not sure I understand that. The U. S. H. A. makes loans to finance the construction of projects.

Mr. STRAUS. Yes.

Mr. O'CONNELL. Would you mind explaining to the committee the interest profit? The U. S. H. A. makes the loans to the local public agencies at an interest rate generally of 3 percent. At the same time the U. S. H. A. is obtaining money from the public by selling its own 5-year bonds bearing an interest rate of about 1½ percent. The difference between the rate at which the U. S. H. A. borrows money and the rate at which the U. S. H. A. lends money represents a profit at the present time to the Government.

The CHAIRMAN. Does the Government collect that profit?

Mr. STRAUS. It represents a reduction in the amount which the annual contributions will cost. It does in that sense of the word reduce the amount of the annual contributions.

The CHAIRMAN. Will not the annual contributions then exceed the amount of the interest?

Mr. STRAUS. They will exceed the amount of the interest, but, nevertheless, you will have that profit to deduct from.

The CHAIRMAN. That is a bookkeeping profit and not an actual profit in the cash box.

Mr. STRAUS. It is a reduction in the amount of the annual expenditure, which is equivalent, isn't it, to a profit?

The CHAIRMAN. I am now talking about the cash in the till.

Mr. FRANK. If you didn't earn that interest, then you would be making a larger annual contribution.

Mr. STRAUS. Yes. I think the Senator understands it.

The CHAIRMAN. That is true, but in addition to the loan you make the annual contribution to the local authority.

Mr. STRAUS. That is right.

The CHAIRMAN. And that contribution exceeds the difference between the interest you receive and the interest you have to pay.

Mr. STRAUS. It does. I can point that out in figures further on. You are absolutely right.

Mr. O'CONNELL. Can you give us the figures, then, net cost?

Mr. STRAUS. Yes. The total net cost to the Federal Government of the whole and proposed rehousing and slum-clearance program, allowing for the profit on the Federal loans at the current rate, would be a little over \$53,000,000 a year, as contrasted with the gross annual contributions authorized of \$73,000,000.

There is a \$20,000,000 reduction, a reduction in expenses, perhaps not correctly phrased as a profit.

The CHAIRMAN. In fixing the rental figures, what elements are taken into consideration?

Mr. STRAUS. Only really one thing, the amount of rents now paid by the families in the slums whom we want to rehouse. That is the only thing taken into consideration. Then a project is studied in an effort to meet those rentals, and if the project as it works out is exempted from taxes, and with these annual contributions deducted from the rents, cannot meet the needs of the families in the slums, then we won't make the loan on annual contributions contract. We have done a good many on that basis.

The CHAIRMAN. What estimate have you made with respect to the rental receipts over a period of years from these projects?

Mr. STRAUS. You mean whether there will be arrears or not?

The CHAIRMAN. You expect these projects to be occupied for how many years?

Mr. STRAUS. Sixty.

The CHAIRMAN. Sixty years?

Mr. STRAUS. Yes.

The CHAIRMAN. Then have you made a computation with respect to the project in Austin, for example?

Mr. STRAUS. Yes.

The CHAIRMAN. What would be the total rental income to the Authority?

Mr. STRAUS. I will see if I can make that clear. This is the way it is gone about. The total rent that would have to be received by the local authority (a) to retire the debt; (b) to pay taxes, (c) to maintain the property operating, we will say. The amount that those slum dwellers actually pay in the slums on the other hand, is determined. The first of those figures we will call the economic rent. The second we call the social rent. From the economic rent is deducted (a) the amount of the Federal annual contributions, and (b) the amount of taxes which are the local contributions because the project is exempt from taxes. And if the difference between economic rent and those annual contributions is sufficient to bring the rent down to the rents paid in the slums today, we make the loan contract. If it is not, we send it back to the local authority and tell them to restudy it.

The CHAIRMAN. There is never any effort then in setting up one of these budgets to fix the rents upon a basis that would return a profit to the local housing authority.

Mr. STRAUS. Oh, no, sir.

Representative REECE. How is the amount of the contribution arrived at?

Mr. STRAUS. The amount of the contribution so far in all cases has been the maximum we are allowed to make under the law, which is the going Federal rate of interest plus 1 percent, $3\frac{1}{2}$ percent generally, or $3\frac{3}{4}$ percent.

Mr. O'CONNELL. Per year.

Mr. STRAUS. Per year. I will tell you why I did that, sir. We felt that this program had been subject to so much attack on the ground that we were not rehousing families in the lowest income groups that we decided in this past year not to do any gambling on that subject, but to make quite certain that in every case we would reach the very lowest incomes and, therefore, in every case we have given the maximum contributions allowed by law.

Representative REECE. In the Austin project, for example, what is the estimated, or rather what is the cost of each unit there?

Mr. STRAUS. I don't know that I can answer that offhand. We can have that looked up. Generally the costs vary in the neighborhood of three thousand to four thousand dollars. Some have been as low as twenty-six and twenty-five hundred.

Representative REECE. That is satisfactory without giving the exact figures.

Mr. STRAUS. The net construction cost for the Austin project is \$2,513 per dwelling.

Mr. O'CONNELL. I would like to ask just one question relative to this savings in interest. I take it that the savings is dependent upon the purchase of the bonds that the local housing authorities buy.

Mr. STRAUS. Right.

Mr. O'CONNELL. And it might very well be that some of the bonds of these housing authorities might be sufficiently attractive so that the U. S. H. A. would not have to buy them.

Mr. STRAUS. Well, today we are allowed to buy over 90 percent of them, and 10 percent are sold to private investors. Actually, the interest of private investors is so great in those bonds that I have a feeling that in the coming year we are going to sell a great deal more than 10 percent, 40, 50, 60, 70 percent privately, which would relieve the Federal Government from purchasing that much of it.

Mr. O'CONNELL. It would also reduce the profit to which you referred.

Mr. STRAUS. It would also reduce the profit, but as an offset against that, sir, I would like to point out that you have other things to bank upon. I have a feeling that the annual contributions as such will come down year by year. We are learning how to build cheaper and plan more economically on every project, and I believe it is reasonable to assume that the amount of our annual contributions will tend to decrease. Experience abroad would confirm that belief.

Dr. THORP. Have you any indication of the kind of purchaser buying these bonds—institutions, or banks?

Mr. STRAUS. Mostly, I think, local banks, private institutions. In some cases, particularly in Austin, a wealthy local citizen, who is tremendously enthusiastic for housing, because the total amount is small. I think all types of investors are interested in high-grade securities.

Mr. O'CONNELL. In some ways those bonds should be quite attractive.

Mr. STRAUS. They are tax-exempt, long-term bonds. I think they are most attractive.

Mr. O'CONNELL. What is the gross and net annual cost to the Federal Government of rehousing a family and a person? Have you any information on that?

Mr. STRAUS. I am supposed to have; yes. The average gross U. S. H. A. annual contribution for a family rehoused, on the experience to date, is \$158 a year; and the average net U. S. H. A. annual contribution—that is, allowing for the interest profit—for a family rehoused is \$115.50. The gross and net figures for rehousing a person are, respectively, \$39.50 and \$29.

Those figures are based upon an estimated average over-all development cost of \$4,507 per unit, including land, nondwelling facilities, and the new houses, and that \$4,507 covers the first 140 projects covered by the approved loan contracts, but over-all costs are constantly going downward and so it is not unreasonable to look forward to an average net U. S. H. A. annual contribution of \$100 or less per family rehoused.

That is what we are working toward. These annual costs to the Federal Government are based upon the original development costs and the annual subsidy cost of rehousing including land, nondwelling facilities, and the new houses.

Let me point out, however, that these costs are treated separately from the costs of slum clearance; that is, the purchase and tearing down of old "rookeries," which is a separate general community benefit not to be assessed against the individual families rehoused.

Mr. O'CONNELL. What local annual contributions are required and how big are they?

Mr. STRAUS. A tax remission according to law of an amount equal to at least 20 percent of the U. S. H. A. annual contributions. In some cases we pay a small service charge in lieu of part of the taxes. In most cases we try to avoid that. On the average, so far, the local annual contributions are about one-half of the U. S. H. A. annual contributions and it may interest you to know that that is just about on a par with Great Britain's experience.

Mr. O'CONNELL. You say according to law your act requires a 20 percent minimum annual contribution by the municipalities.

Mr. STRAUS. Yes; it must be 20 percent as large as the U. S. H. A. annual contribution, instead of which it is nearly 50 percent as large.

Mr. O'CONNELL. The exemption from local taxation really amounts to 50 percent?

Mr. STRAUS. Right. It is interesting to note that in Great Britain, which is very much wedded to custom, they collect the taxes in full on these projects and then they pay them back at the end of the year to the local authority. Under our statute, that would be very confusing, so we have them exempted from taxation by State statute.

Mr. O'CONNELL. What would be the result if local projects were not exempt from local taxation?

Mr. STRAUS. I would like to take a conservative example on that. Say the Anytown project provides 450 dwellings. Its total development cost—that includes land, demolishing the slums which were formerly located on the site, and dwelling and nondwelling facilities—

amounted to \$2,000,000. The local tax rate is 2 percent on a 100-percent valuation. In other words, to operate the project and pay back the money that is borrowed from the U. S. H. A. and from local investors the Anytown Housing Authority with the help of the U. S. H. A. annual contributions would need to charge no more than \$3.50 rent per room per month or \$14 rent per 4-room unit. This figure would be lower in a small town and might be higher in a large city. But now the point is that the full annual taxes would amount to \$40,000, 2 percent on the \$2,000,000 project, and that would add on \$1.85 per room per month, or about \$7.50 per dwelling unit. So rent for a 4-room dwelling would be increased from \$14 to \$21.40, a 50-percent increase. That would be very bad. In the first place you wouldn't rehouse slum dwellers, and in the second place you would be impinging upon the field that should be properly the field of private enterprise.

Mr. O'CONNELL. I think you probably answered it; I just want to ask you why it was necessary to have a Federal and a local contribution. I take it that the answer is inherent in the answer to the last question.

Mr. STRAUS. Yes; unless you have local contributions in addition to the Federal contributions you won't get down to the needs of slum dwellers in terms of rent.

Mr. O'CONNELL. What is the theory of this annual contribution idea? As I recall it, in the early days of Government housing, the contribution was a capital contribution.

Mr. STRAUS. That is correct. The advantages of the annual contribution over the capital contribution are several. In the first place, the capital contribution experienced here and abroad tends to be swallowed up in additional costs. In the second place, by means of the annual contributions the Federal Government has a sort of double check on the local housing authorities, that it is maintaining the project, that it is rehousing families from the slums, and only those families; and that continuing control continues throughout the life of the project. And, in the third place, it is my belief that a pay-as-you-go policy is very important. The capital-grant system assesses against us of this generation benefits that will accrue to the community throughout the life of the project, 60 years.

I think the community each year should be assessed for the benefits that accrue to it.

The CHAIRMAN. Do you think that is done with respect to the Housing Authority?

Mr. STRAUS. Excuse me; I didn't get that.

The CHAIRMAN. Do you think that characterizes the whole development of the Housing Authority?

Mr. STRAUS. Yes, sir; I do.

The CHAIRMAN. There isn't any cost which is set forward to the ensuing generations?

Mr. STRAUS. I think that each year the cost is assessed against the people of that particular year for the benefits which accrue in that particular year. I sometimes use this comparison, Senator. When you put up a hospital or you put up a school you could conceivably pay outright in a capital grant the entire cost of medicines and doctors in the hospital and teachers in the school for the 50- or 60-year life of that hospital, but you don't do that. It is a charge on the

community to maintain that hospital year by year. You can call it annual contribution or you can call it any other sort of contribution; it has to be maintained and people are taxed for it. I think that is sound.

The CHAIRMAN. Of course, the theoretical outline is perfectly sound, but sometimes, perhaps, maybe we are overlooking the realities. You finance the whole housing authority first by the issuance of bonds which are sold through the Treasury, of which to date the great bulk have been purchased by the Government. Is that correct?

Mr. STRAUS. That is correct, Senator.

The CHAIRMAN. There is an increasing participation from private sources, private investors. Is that correct?

Mr. STRAUS. That is correct; yes.

The CHAIRMAN. But that contribution is due almost exclusively to the fact that these are tax-exempt.

Mr. STRAUS. And to the annual Federal contributions which make them a safe investment.

The CHAIRMAN. Now, if the tax-exempt policy should be set aside by the Government that would have a serious effect upon this, would it not?

Mr. STRAUS. Senator, we have given a lot of thought to that. As far as you are interested in my personal beliefs, I don't believe it would. I think if the Government as a matter of policy withdraws exemption from taxation from all municipal securities under a blanket statute and these would come under that same umbrella, that in all probability they would also find a level where they could be sold not so much above the present level. Of course, it would affect the interest rate.

The CHAIRMAN. But the other factor that makes them salable is the Federal contribution.

Mr. STRAUS. That is correct.

The CHAIRMAN. And that, of course, is the contribution of the Treasury?

Mr. STRAUS. Right.

The CHAIRMAN. And at the moment it is a deficit contribution?

Mr. STRAUS. It will continue to be.

The CHAIRMAN. And inasmuch as it is a deficit contribution, it is a contribution which is to be drawn from future taxes and therefore it is not a pay-as-you-go plan.

Mr. STRAUS. Oh, you are looking at it from the point of view—

The CHAIRMAN (interposing). Of the realities of the situation.

Mr. FRANK. It is a pay-as-you-go, is it not, in the sense that since taxes are collected annually, the Nation is paying for it (which is what Mr. Straus indicated), annually and not in a lump sum?

Mr. STRAUS. That is exactly what I mean.

Mr. FRANK. That is exactly the point.

Mr. STRAUS. Yes; that is the point that I was trying to make.

The CHAIRMAN. I think again that that is a merely theoretical supposition. Of course taxes are being levied annually but they are by far not sufficient to pay the cost of government, so that merely to say that we are paying it by levying taxes is just an assumption; it isn't a reality.

Mr. FRANK. The thing that Mr. Straus was getting at, if I can interpret him, is that the interest on the Government's contribution,

which interest is paid to the purchasers of Government securities, is collected annually out of taxes. Therefore, the cost of the capital issue is being borne annually in successive years by reason of taxes collected in successive years.

Mr. STRAUS. More directly, perhaps, I can make clear what I was endeavoring to say. I appreciate fully what you mean, Senator, when you say that by reason of the particular situation today therefore these annual contributions are temporarily not being met out of annual income, and therefore you criticize my use of the words "pay-as-you-go."

The CHAIRMAN. Oh, no, no; I don't criticize.

Mr. STRAUS. Well, not criticize, but commenting on it. I understand you perfectly, but what I was driving at was this: I was trying to contrast the policy of capital grants as compared with the policy of annual contributions, and to point out, in response to the question, that a capital grant assesses the entire cost of these projects over 60 years today, and that annual contributions assess that cost annually and—well, as far as one can make a comparison, that at least more closely approximates a pay-as-you-go policy. Is that a more fair statement?

Mr. O'CONNELL. I would just like to ask a question. It is a fact, isn't it, that the bonds of the local housing authorities, if they are attractive, are probably attractive by virtue of the annual contribution contract rather than by virtue of the tax-exempt feature of the bonds.

Mr. STRAUS. That is exactly what I was trying to say.

Mr. O'CONNELL. Particularly if the bonds were to be purchased by institutional investors. I take it that that group is of no importance at all.

Mr. STRAUS. That in turn would be an exaggeration, that it is of no importance, but I have always been dubious of the theory that these bonds would be equally salable if they were not tax exempt, provided, let me emphasize, sir, that the exemption were withdrawn by means of a blanket statute rather than a discriminatory statute.

Mr. O'CONNELL. I have always been, I may add, very dubious about the value of the tax-exempt privilege in terms of the effect that it would have on public financing generally if it were withdrawn. There is a wide range of opinion on the subject, but in any event, if these bonds were not tax exempt, it is your belief that they would be attractive bonds by virtue of the annual contribution of the Government.

Mr. STRAUS. Provided they did not have the competition of other bonds of similar character which were tax exempt.

Mr. O'CONNELL. How are the Federal and local annual contributions computed, Mr. Straus?

Mr. STRAUS. The act requires that the U. S. H. A. annual contributions be not greater, as I have already stated, than the going Federal rate of interest, that is, the rate of interest on general Treasury borrowings having a term of 10 years or more, plus 1 percent of the total development cost of a project. This has meant that the maximum annual contributions contracted for on approved projects will be at the rate of 3½ percent and in some few cases 3¾ percent of the project's development cost, or, to talk in terms of figures, which may be easier, from \$35,000 to \$37,500 on the basis of a million-dollar project, and as I have already pointed out, the act requires that the local annual

contributions be at least 20 percent of the U. S. H. A. annual contributions. Actually they have averaged nearer 50 percent of the U. S. H. A. contributions.

Mr. O'CONNELL. I have heard it said that the Federal or local annual contributions amount to what is to all intents and purposes 100 percent subsidy. Is that correct?

Mr. STRAUS. I think that is based on an entire misconception of the intent and the language of the act. It is a common fallacy, nevertheless, and of course from that you draw the erroneous conclusion that the U. S. H. A. contributions represent 100-percent subsidy. This would be correct only if debt service were the only cost of living in a home. The fact is that the economic cost of housing, the economic cost of living in a house, represents not only debt service, but taxes, operation, management, repairs, vacancies, insurance, reserves, replacements, and so forth. This whole economic cost represents the rent paid by the tenant if there were no grants-in-aid, what I call the economic rent. The grants-in-aid are to reduce this economic rent, which may be twice as big as debt service alone, and must be measured in terms of this economic rent. When thus correctly, and I think appropriately, measured, the maximum U. S. H. A. annual contribution averages about one-third of the economic rent, amounts, in other words, to a 33 $\frac{1}{3}$ -percent subsidy. The local annual contribution, being, in most cases, about half of the U. S. H. A. contribution, amounts to about one-sixth of the economic rent, about a 16 $\frac{2}{3}$ -percent subsidy. The U. S. H. A. and the local contributions together represent about a 50-percent subsidy, in other words a 50-percent reduction in the economic rent; we cut it about in half. This size reduction is necessary to rehouse slum dwellers, and, again, this size subsidy corresponds substantially to the size of the subsidy paid by the national and local governments in England under similar circumstances.

Mr. O'CONNELL. Do I understand that the financing of the construction of these houses in the first instance will not ultimately represent an item of expense to the Government?

Mr. STRAUS. No. That is an important matter. The capital development financing is entirely by means of loans made to the local housing authorities both from the U. S. H. A. and private sources and every cent of those funds is repayable in full with interest. I should like to point to the evidence of the eagerness of private investors to buy the bonds, that they are a safe investment and will be paid.

Mr. O'CONNELL. So that the \$650,000,000 of your program, if it is loaned, will ultimately be repaid with interest, and the cost to the Federal Government represents the sum total of the annual contribution?

Mr. STRAUS. Right.

Mr. O'CONNELL. At what interest rate does U. S. H. A. lend money?

Mr. STRAUS. The act requires that it be not less than the going rate of interest plus one-half of 1 percent. That means the interest rate on the loans made by the U. S. H. A. to the localities has been 3 percent and in some cases 3 $\frac{1}{4}$ percent, depending upon the then going rate of interest; under the act there must be a margin of at least one-half of 1 percent between the rate at which the U. S. H. A. borrows money and the rate at which it lends money to the localities;

in fact, this margin to date has been 1½ percent, making the loan transaction a source of substantial profit, as I have indicated.

The CHAIRMAN. Have all new projects so far constructed been slum-clearance projects?

Mr. STRAUS. Every project, Senator, must be. If it is not built in the slums, we have to have an agreement that the city will demolish an equivalent number of units within a period—usually 2 years after the project is complete.

The CHAIRMAN. As I listened to your reading the title of the act, it seemed a little broader than that, but it is not?

Mr. STRAUS. No; it is very, very tight on that point, Senator.

The CHAIRMAN. And your only authority is to construct houses for the purpose of eliminating the slums?

Mr. STRAUS. And rehousing slum dwellers. Two-thirds of the projects developed to date are located in slums and about one-third on vacant land, but no matter where located, every new unit we put up results in the closing up of one slum, shack, or slum locality.

Mr. O'CONNELL. How are the capital development loans or funds raised?

Mr. STRAUS. Up to about 90 percent by borrowing from the U. S. H. A., and at least 10 percent from private sources.

Mr. O'CONNELL. You mean U. S. H. A. may lend up to 90 percent but not in excess of that?

Mr. STRAUS. That is right.

The CHAIRMAN. Your experience hasn't been long enough to determine what the effects of use are likely to be upon the projects?

Mr. STRAUS. No, Senator; I wouldn't say that we had any experience in connection with U. S. H. A. projects yet. We have experience that might shed light on it in the P. W. A. projects which we are now administering, in limited-dividends projects, which is a field with which I am personally somewhat familiar, and in projects abroad. There isn't any reason, if the project is well kept up and properly designed in the first place, why it shouldn't be just as attractive and suitable for occupancy, bearing in mind these are families of minimum income, 40, 50, 60, 80 years from now, as they are today.

So many of the buildings we now term slums, were slums, Senator, 2 weeks after they were put up, shoddy construction—they crowded all the site; they had no light and air, and no sanitary provisions. These buildings have every provision for a decent, comfortable life at a minimum of cost.

The CHAIRMAN. It is a fact, is it not, that by far the greater majority of occupants of dwellings of this kind do everything in their power to keep up the apartments?

Mr. STRAUS. Quite the fact, Senator. There is no worse libel than the coal in the bathtub story. Tenants are eager, more particular of taking care of the planting and being sure that the nursery rooms are clean, than you and I would be.

Mr. O'CONNELL. To what extent and at what interest rates are the localities participating in the capital development loans for the building of projects?

Mr. STRAUS. The local authorities must raise at least 10 percent. No difficulty has been experienced, as I said, in disposing of that 10 percent of the bond that they must sell, and the growing awareness of the soundness of these obligations will, I believe, in the coming

years make it possible to finance a much larger cost. Of course, that comes within the realm of prediction.

Mr. O'CONNELL. It is your belief in a period of time the extent of participation of private capital—today, generally, the purchasing of local housing bonds—will increase.

Mr. STRAUS. I think it will be very large—very large.

Mr. O'CONNELL. Could you tell us something about the costs of your projects per dwelling unit?

Mr. STRAUS. I am particularly glad that question is asked. There isn't any subject on which more confusion in thinking exists than in the matter of costs. I have heard costs over the last year quoted as the cost of a unit. Only the other day a fellow said he was constructing housing for \$900. The essence of all that confusion is what you mean by cost. If you describe the cost of the suit you have got on, the cost of the cloth cut to measure with no linings and with no buttons or trimmings, you arrive at one figure for cost. If, on the other hand, you are speaking of cost of a suit ready to wear, you have another meaning of "cost," and the only way I can make a comparison, it seems to me, is to illustrate this.

We tried to do this job for the House committee.

(The chart referred to was marked "Exhibit No. 931" and appears on p. 5423.)

Mr. STRAUS. On the left-hand side you have here "Net construction cost," which is comparable with the cost of private building, since these items are included in the building-permit averages for private construction regularly published by the Bureau of Labor Statistics. These items include the cost of building the house, plumbing, heating, and electrical construction.

The CHAIRMAN. That doesn't include the cost of the land?

Mr. STRAUS. No, sir; it does not. That comes in the last column. In the next column is "Dwelling facilities cost." That was written into our act, that term, and is comparable with the statutory dollars and cents limitations which in our act are for cities under 500,000, a thousand dollars a room, or \$4,000 a home; and in larger cities, over 500,000, \$1,250 a room, or \$5,000 a home.

Mr. O'CONNELL. Five thousand a dwelling?

Mr. STRAUS. That is supposed to be a range [indicating picture on "Exhibit No. 931"], cost of architects' fees, local administrative expenses, and carrying charges; that is, statutory cost we call that.

The CHAIRMAN. Those are the three elements of cost which go into the estimate of a thousand dollars per room?

Mr. STRAUS. Yes, sir; that is correct.










Then you have what most of us talk about when we buy a home. We want it ready to live in. That is the fairest thing to talk about when you are talking about the cost of a house, but very few people do, Senator. That is the cost of the new housing. That is comparable with the value of new homes insured by the F. H. A. We often make that comparison, the cost of the building, including cost of plumbing, heating, and electric installation, architects' fees, local administrative expenses, and carrying charge, plus the cost of the land, and plus the cost of nondwelling facilities. He put some telegraph poles and trees in there. It is that, and electric-light conduits, sidewalks, trees, and the like.

Now, if you compare that cost for the U. S. H. A. program or any Government housing program with this cost for the private builders,

you then get those figures so often quoted to prove that Government housing is more expensive. Actually, our cost is consistently below the costs of the private building industry in the same city. The average net construction cost of dwellings on U. S. H. A.-assisted projects on which main construction contracts had been let by the first of this year is \$2,830. That is the middle column instead of

EXHIBIT No. 931

WHAT ARE HOUSING COSTS?

Column 1	Column 2	Column 3
NET CONSTRUCTION COST	DWELLING FACILITIES COST	'OVER-ALL' COST
Comparable with cost of private building, since these are the items included in the building-permit averages for private construction published by the U.S. Department of Labor, Bureau of Labor Statistics.	Comparable with statutory dollars and cents limitations which are: Cities under 500,000 Per room \$1,000 Per dwelling unit \$4,000 Larger cities Per room \$1,250 Per dwelling unit \$5,000	This is the cost of new housing and does not include the cost of slum buildings to be torn down. Comparable with the value of new homes insured by the F.H.A.
		
Cost of building the house, including the cost of plumbing, heating and electrical installation	Cost of building the house, including the cost of plumbing, heating and electrical installation	Cost of building the house, including the cost of plumbing, heating and electrical installation
	+	+
		
	Cost of dwelling equipment	Cost of dwelling equipment
	+	+
		
	Architects fees, local administrative expenses and carrying charges	Architects fees, local administrative expenses and carrying charges
		+
		
		Cost of land
		+
		
		Cost of non-dwelling facilities

the left. Excuse me. It is the left-hand column. This compares with the figure of \$3,840 representing the private building permit average in the same cities.

I think it is the more remarkable because they are our projects, and we have to pay the prevailing wages, and they are built for 60-year life.

Mr. O'CONNELL. Why do you exclude the cost of the building to be torn down, from your cost?

Mr. STRAUS. Because we feel that is a community contribution that can't reasonably be charged up to the individual home owner. It is a community benefit rather than a benefit attributable to any individual new housing, although in making up total over-all cost of the Presidential list—

Mr. O'CONNELL. There is a cost?

Mr. STRAUS. I think it is about 10 percent of the total.

Mr. O'CONNELL. What is your experience about costs with construction of this kind? Have you been successful in reducing costs?

Mr. STRAUS. Yes; the trend is continually down. We have a chart on that.

(The chart referred to was marked "Exhibit No. 932" and appears on p. 5425.)

Mr. STRAUS. The black line is trend in terms of thousands of dollars for each one of the Presidential lists, which is U. S. H. A. slang for a group of contracts submitted to the President for approval.

The CHAIRMAN. Are you going to put that in the record?

Mr. STRAUS. Yes.

The CHAIRMAN. Then let us say the straight line represents the trend and the irregular line represents—what did you call it?

Mr. STRAUS. The actual experience as indicated by each successive group of contracts submitted to the President.

The CHAIRMAN. I do that because the chart will not appear in colors in the record.

Mr. STRAUS. Each dot represents cost per dwelling unit in that particular group of contracts submitted to the President; that is, average cost per dwelling. I don't think we have exhausted those possibilities. I think the trend will continue to go downward, other things being equal.

Mr. FRANK. That is over how long a period?

Mr. STRAUS. The first one was around March—March 1938. My guess is, I am almost sure, up to last month.

Mr. FRANK. June of this year?

Mr. STRAUS. June of this year.

Mr. O'CONNELL. Are U. S. H. A. projects always built on slum areas or built sometimes in vacant property?

Mr. STRAUS. Before I answer that, may I get one thing in the record on the matter of cost, because it is so important. U. S. H. A. has already approved a score of projects where the over-all costs will be only \$3,606 per dwelling, and several projects average as low as \$3,100.

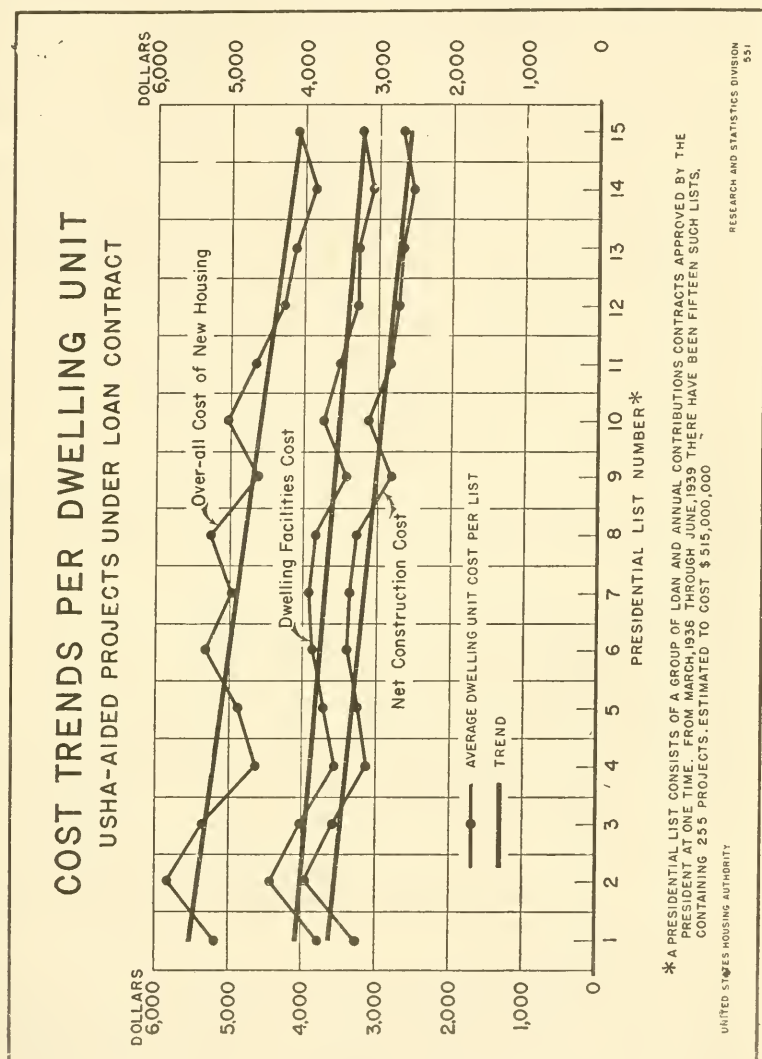
A real technique of designing and building large-scale, low-cost housing projects is now being developed by the local authorities, in collaboration with our own technical staff. Excuse me, sir.

Mr. O'CONNELL. My question was as to where the projects are ordinarily constructed, on vacant land or slum area?

Mr. STRAUS. About two-thirds are in the slums and about one-third, to date, on the vacant land. Most of the local authorities start out with ambitions to do the job immediately in the slums and frequently find that becomes inadvisable (a) because the land costs may be high; (b) because the land is often held in many ownerships and exceedingly difficult to acquire; and (c)—and most important of all—in so many cities the housing shortage in the lower-income groups is already so desperate that any increase in it by reason of demolition before you construct new dwellings would cause a condition that would cause tremendous suffering, so they often decide to build their

new projects on vacant or partially vacant land, to move the people out of them before building in the slums.

In every case I should like to emphasize we have an ironclad contract with the city government that the equivalent elimination pro-



vision of the act must be lived up to within 2 years after completion, except it is proven to our satisfaction that that would cause such dangerous overcrowding, when we allow them temporarily to defer it.

Mr. O'CONNELL. I had always understood that the cost of land in slum areas was a very serious obstacle to building low-cost housing. What is the policy of the U. S. H. A. on land cost?

Mr. STRAUS. That was a problem that we had to face from the outset, and I decided there to make use of administrative authority to make a flat determination that we will not loan on land on which the cost, including the cost of slum buildings to be torn down in this case, exceeds an average of \$1.50 a square foot for the area acquired, and we have not done that in any case except where the community itself has borne a substantial proportion of any excess.

In that case I am ready to relax the rule, but it does not often happen.

Mr. O'CONNELL. In what areas would that dollar and a half maximum be important?

Mr. STRAUS. In many cities, in New York, and Chicago, and Boston, and in a great many cities, you see, by reason of the fact that so many of these cities have the—what is the correct word—the boundaries of the corporate limit narrowly drawn—the amount of land available within that corporate limit is often very limited and therefore sells at a high price.

Mr. O'CONNELL. Well, can you buy land for a dollar and a half a foot in New York slum area?

Mr. STRAUS. All of the projects, except the most recent one, called Corlear's Hook, and there the city has chipped in over \$200,000 in cash.

Mr. O'CONNELL. What families are eligible to live in U. S. H. A. projects?

Mr. STRAUS. Well, first of all, low-rent housing as used means decent, safe, and sanitary dwellings within the financial reach of families of low income. Families of low income is defined in the act as—

families who are in the lowest income group and who cannot afford to pay enough to cause private enterprise in their locality or metropolitan area to build a adequate supply of decent, safe, and sanitary dwellings for their use.

The act further provides that the dwellings in the U. S. H. A.-assisted projects shall be available only for families whose net income at the time of admission does not exceed five times the rental—including the value or cost to them of heating, lighting, water, and cooking fuel—of the dwellings to be furnished. The only exception to this rule is that families with three or more minor dependents may have net incomes as high as six times the rental.

It is interesting to note, by the way, that most State legislation is even more specific in that, and the terms of the loan contracts between the U. S. H. A. and each local authority provide an absolute guaranty that tenancy will be strictly limited to low-income families now living in substandard homes.

I should like to put in the record the fact that sworn statements will be obtained periodically from the head of each family, and investigators must file affidavits that prospective tenants cannot afford to obtain safe, sanitary, and uncongested privately owned housing.

Mr. O'CONNELL. Is there anything in the act under which you operate, relative to the general problem of unemployment? Is that referred to?

Mr. STRAUS. Yes, sir. The act uses the wording alleviation of "present and recurring unemployment." That is one of its declared purposes.

Mr. O'CONNELL. So that you have a dual function, I take it, to help to relieve unemployment and also help to take care of people who are not economically in position to afford adequate dwelling accommodations?

Mr. STRAUS. And wouldn't you add another one? I like to emphasize stabilizing the building industry, which in the past has suffered such violent fluctuations to the detriment of the entire economic life of a community.

Mr. O'CONNELL. In other words, to the extent you participate in a building program and carry it on in a long-range manner, it helps to stabilize the industry?

Mr. STRAUS. Yes—a feast and a famine.

Mr. O'CONNELL. What is the estimated amount of employment which will be created under the present program, and also under the expanded program?

Mr. STRAUS. We have worked that out in terms of the \$28,000,000 contribution annually, which is our ceiling, which will build about 160,000 houses, dwelling units. That, according to our economists, will provide 600,000,000 man-hours of direct and indirect employment, or about 300,000 man-years spread over this winter and the next 2 years. At the peak of employment early in 1940, there will be employed about 165,000 men per month, according to our best figures, for about 6 months. Full-time employment for building-trades workers on the site in this period will be about 65,000 men, and in connection with the amendments we are asking for, and I hope are going to be granted, giving us \$45,000,000 additional contributions, total \$73,000,000—the expanded plus the present program will provide employment for 750,000 full man-years, spread over a 4-year period. At the peak of employment running from the spring of 1940 until the end of 1941, it will provide full-time employment for about 230,000 men at the sites, for about 16 months. Of this number about 90,000 building-trades workers would receive full-time employment, although the building-trade workers are ordinarily employed for relatively short periods, and the actual employment would therefore be spread over a much larger number, each receiving less than full-time employment, it will be recognized that even this expanded program, operating at its peak, will be unable to take up all the slack in building-trades unemployment.

At the time we published our first annual report, we had the figures checked in the Labor Department, and they estimated there were 1,000,000 idle men in the building trades.

Mr. O'CONNELL. What is the labor situation? Is labor cooperating in the program?

Mr. STRAUS. Labor has been extraordinarily cooperative, and I am glad to have an opportunity of testifying that the building-trades workers have taken steps which are already an important factor in lowering the building costs of housing projects by reducing the risk of delay or a change in wage rates during the course of construction.

An understanding has been reached with the building and construction trades department of the American Federation of Labor that (1) in case jurisdictional disputes arise on any low-rent housing project assisted by the U. S. H. A., no stoppage of work will take place until such time as the building and construction trades department of the

American Federation of Labor has had full opportunity to adjust the differences between the trades, and providing (2) that wage rates in effect at the time construction is started on a project shall be maintained during construction of the project. This widely heralded precedent has resulted in the adoption of hundreds of similar resolutions by local building trades councils, reinforcing the central union.

Another evidence of the cooperation of labor groups and of the recognition of their importance, is the fact that, in a great number of cases, representatives of labor have been selected to serve as members of local housing authorities, and we like to encourage that.

This agreement with labor has been a very important factor in keeping down cost of bids; in the old days, when a man bid on a job, he didn't know when he would have a jurisdictional strike on, or an attempt to get higher wages, and now they are bidding with the knowledge that they are bidding on low-cost housing, and that helps us.

Mr. O'CONNELL. What are the labor standards required under U. S. H. A.?

Mr. STRAUS. The act requires prevailing wage rates as determined or adopted by the U. S. H. A. are to be paid; and, furthermore, the so-called kick-back statute has been made applicable, and we are vigorously enforcing that.

In addition, the loan contracts provide for the right of workers on U. S. H. A.-assisted projects to organize into unions without interference from employers. There are conditions in the contracts prohibiting convict labor, prescribing maximum hours of work, requiring safety standards, barring discrimination, and relating to the settlement of claims and disputes, to the frequency of payments, and forbidding the use of convict-made and foreign materials.

Mr. O'CONNELL. I have heard suggested, and I think it was referred to once, before this committee recently, that the U. S. H. A. program was one which, let me say, encroaches upon the field of private enterprise. What is your belief on that?

Mr. STRAUS. That is a statement which has been occasionally made. The figures are that our program is directed to rehousing families according to the housing act, for which private enterprise cannot profitably, and therefore does not, build. In general we rehouse those families of income lower than \$1,000 and the average income of families in our projects in almost every project—average income of the families occupying it—is less than \$1,000. Private industry does not build for incomes of less than \$1,750 or \$1,800, using the usual standard that a family can afford to buy or rent a building, home, costing about twice its annual income; between those two figures, our top-income group and the lowest-income group reached by private industry, you have all of the families in the United States, roughly, with incomes of a thousand or \$1,100, to \$1,750 or \$1,800.

Mr. FRANK. That is what percentage?

Mr. STRAUS. That is approximately one-third of all the families in this country according to the best figures we can get. So far from our treading on the toes of the private building industry, there is actually a cushion, a gap, a no-man's land, for which neither we nor the private industry is building today. We have charts on that but we haven't them here.

Mr. O'CONNELL. What has the European experience been? Have you any information about the public housing programs in England

and other European countries, as to how that has operated, whether it has been in conflict with the private enterprise?

Mr. STRAUS. I studied that for a good many years. Since 1919, in England and Wales, about 1,100,000 new dwellings have been built under a public housing program similar to the program of the U. S. H. A. by local authorities very similar to ours in every respect. During the same period, the private building industry has built more than 2,200,000 dwellings, the greatest building boom in the history of Great Britain. Private residential construction in England from '30 to '37, was more than three times as great on a basis of unit of population as in this country, and already we are beginning to see that the British experience is being duplicated here. If you travel around the country as I have done, and visit the neighborhood of our projects and P. W. A. projects, in every case old houses are being renovated, new houses going up, stores going up, motion-picture theaters, garages. A public housing program is the greatest known stimulus to the private building business.

The CHAIRMAN. Have you some definite figures on it?

Mr. STRAUS. In this country? The extent of it?

The CHAIRMAN. You have stated that a public housing program is the greatest known stimulus to the private building business, private construction. Could you get us some figures for inclusion in the record?¹

Mr. STRAUS. I would like to do it. First of all, you have the English experience and then I can give you some experience in this country as to what has taken place as to some of the projects open for a year or two. May I put it in the record?

The CHAIRMAN. I will be very glad to have you do it. That will give us definite figures on which to base that on. I agree that ought to be the result, but I should like to have it demonstrated by the figures.

Mr. STRAUS. I will put it in later.

Mr. O'CONNELL. There is one question I should like to ask for my own information. During the course of this hearing I have been struck with the great complexity of the construction industry, and it has occurred to me that the available information as to housing and construction was fragmentary, at best. Have you any thoughts as to whether my impression is correct?

Mr. STRAUS. I am very glad you asked that question. Actually I often feel we are sailing along without adequate information on a long-range program. We know what we should do this year and next year, and the year after, because the need is so great, but in terms of a long-range program that should house all of the families in the slums, the information is utterly inadequate. Dr. Lubin has done yeoman work in helping us out. The W. P. A. has furnished people to conduct those surveys, local surveys as to the number of people in the families, local conditions, and so forth, but in a larger aspect of the picture of the country as a whole, there are no existing figures and we are anxious to have the census include proper figures for a number of conditions bearing on that. We are working on that now in the next census.

I speak of that with less trepidation and less hesitation because the figures they produce will be available only in time for my successor, so I don't mind urging it enthusiastically.

¹ The material in question was subsequently submitted by Mr. Straus and is on file with the Committee.

The CHAIRMAN. While speaking for myself, I should feel that a long-range program which was based upon the existence of the wage standards which have produced the slums in the past, would not be socially beneficial; I am hoping that a result of the work of this committee will be to point the way to increasing the income of this one-third of which you speak, so that better housing facilities, even than those which you have been providing, may be provided in the future. I would prefer to think of this type of housing with its shelter rent of \$6 plus is only a temporary expedient.

Mr. STRAUS. Senator, I like that statement and I acquiesce 100 percent, and I hope the committee is able to point the way toward raising the income of those in the lowest-income groups, which is, after all, the fundamental evil of the whole economic system.

The CHAIRMAN. A little while ago, in the course of your testimony, you stated that you are learning how to build these projects at lower costs. Won't you develop that a little bit? What are you learning about costs?

Mr. STRAUS. I got a list the other day from my own technical division—I have got it pretty well in my head, I think—of what the individual things are that make for the lowered costs. First of all, may I say that I am not one of those who believe in the packaged house that is going to be delivered all wrapped up in cellophane, tied with a red bow, on the site. I don't believe it is just around the corner, sir, and I think the belief that it is just around the corner has been one of the biggest obstacles to low-rent housing and low-cost housing in this country. I base that on a good many years' experience. I think that the development of lower costs is a matter not of one big pool, one big school, but of a thousand details, and I would like to list a few that I got from them. One is to make your walls straight and to have as few breaks in them as possible. One is to run the buildings so that the utility lines may be straight, put all of your bathtubs in one line, so you haven't a lot of bends and extra pipe and therefore extra expense. One of them is to place your heating apparatus so that it will heat more than one room on one line, thereby placing your heating apparatus, as we often do now, with radiators on the inside walls rather than on the outside walls.

For you and me that wouldn't be desirable because the room won't heat quite as quickly and there will be a certain amount of draft around the outside walls, but in terms of the economy that should be demanded in public and subsidized housing the heating provided by radiators on the inside walls is, in the opinion of our technical staff, adequate, it is a big saving. Another item that involves a large saving is the design of the projects so that the tenants maintain most of the space, and that is an additional reason for row houses as contrasted with apartments. You can get the family living in a row house to take care of their own yard; if they live in an apartment they expect to have it kept up for them, so the row house has that additional advantage. Remember that we are always talking of costs more in terms of rents than we are in capital costs, to keep down rents so they are low. These items that I have enumerated comprise both capital costs and rents.

I want to go on to one or two more, if I may, and then I have exhausted the list that I recall. It is often very attractive to design buildings on a hilly slope, and hilly slopes often can be bought cheap.

Buildings on a hilly slope run across the contours; that is costly. We almost always insist, when a project such as that is brought into use, that the project be redesigned so that the buildings run parallel with the contours, which makes for economy. You may think these are little, petty things I am telling you, but all together they spell the difference between extravagance and economy. I don't suppose there is any harm in putting in the record the fact that the local authorities under the U. S. H. A. program are showing costs on these projects from 30 to 35 percent lower than the cost of the P. W. A. projects. That is no reflection upon anybody else; it is always easy for the second man who comes along to benefit by the first man's experience.

The CHAIRMAN. These reductions all go to methods and design rather than the actual cost of construction.

Mr. STRAUS. No, sir; these methods and designs make it possible to construct more cheaply.

The CHAIRMAN. That is true. I was talking about the cost of labor, for example, which is no different?

Mr. STRAUS. Right.

The CHAIRMAN. And the cost of materials is apparently no different.

Mr. STRAUS. Slightly only. They do buy cheaper when they buy in quantity.

The CHAIRMAN. Well, you haven't had any experience with different kinds of material which is better than the material formerly used, or anything of that kind?

Mr. STRAUS. We do a certain amount of experimenting. Perhaps I should express it this way. We encourage the local authority to use the material best understood in that neighborhood, because that way you get workmen who are familiar with it and you get costs down. They want to use, we will say in Detroit, metal windows because metal windows are made there and there has been a big manufacturer's drive for them; they get them cheaply and store them cheaply. Some other place may want to use wood windows; most of them do. Some of the cities in the South like to use a sort of local tile block instead of bricks. We encourage them to use the local material because that is the way to get down costs.

The CHAIRMAN. Thank you very much. Are there any other questions? Have you finished, Mr. O'Connell?

Mr. O'CONNELL. I have no more questions.

The CHAIRMAN. We are very grateful to you, Mr. Straus.

Mr. STRAUS. Thank you for giving me the privilege of coming here.

Mr. BALLINGER. Mr. Chairman, at the conclusion of the Federal Trade Commission's testimony on the sulphur industry,¹ Mr. Langbourne Williams, president of the Freeport Sulphur Co., filed with the Commission a statement expressing his opinion of the testimony which we submitted.² We referred his statement to Dr. Montgomery, who was the Commission's witness on this industry,³ and Dr. Montgomery prepared a statement commenting upon Mr. Williams' comments.⁴ We would like to have both of these statements incorporated in the record.

Furthermore, there is a supplemental memorandum by Mr. Lundvall, who has been the chief accountant for the Federal Trade

¹ See Hearings, Part V.

² Ibid, appendix, p. 2263.

³ Ibid, pp. 1984-2009.

⁴ Ibid, appendix, p. 2268.

Commission in connection with this T. N. E. C. work.¹ Mr. Williams raised some very important accounting problems in commenting upon the way in which the Commission computed its net records on the sulphur industry. So the Commission directed Mr. Lundvall to prepare a memorandum covering the comments. I need only say the methods used by the Federal Trade Commission in this new study are the methods which it has pursued for about 20 years and have generally stood up.

The CHAIRMAN. You desire this material to be printed?

Mr. BALLINGER. Mr. Williams is very anxious to have his statement incorporated in the record and the Commission would be reluctant to have his statement put in the record without the statements of Mr. Montgomery and Mr. Lundvall.

The CHAIRMAN. You desire that the material be incorporated in the daily printed record and it be incorporated in the record in the proper place in connection with the sulphur testimony?

Mr. BALLINGER. Yes, sir.

The CHAIRMAN. Without objection, it is so ordered.

(The statements referred to were marked "Exhibit No. 389A" and are included in the appendix to Hearings, Part V, p. 2253 et seq.)

Mr. O'CONNELL. Mr. Chairman, I referred this morning, and I would like to refer again, to the fact that unfortunately we have been unable to have Mr. Stewart MacDonald, the Administrator of the F. H. A., testify before the committee at this hearing. We had hoped he would because, as I said before, the F. H. A. was referred to time and time again during the hearing, and it is at best unfortunate that we are unable to have some testimony about the policies and practices of the Federal Housing Administration.

This being so, there are no more witnesses to testify before the committee and if it pleases the committee we thought it advisable to have Professor Kreps, who is on the committee staff, and who is associate professor of business economics in the Graduate School of Business at Stanford University, summarize the material that has been presented to the committee in the course of this hearing. If there is no objection, I would like to suggest that Dr. Kreps be permitted to make his statement to the committee.

The CHAIRMAN. Doctor, the opportunity is yours.

STATEMENT OF THEODORE J. KREPS, ECONOMIC CONSULTANT TO THE COMMITTEE

SUMMARY OF TESTIMONY ON THE CONSTRUCTION INDUSTRY

Dr. KREPS. It seems that immemorial custom has dictated that every presentation, either written or oral, end with an attempt to bring into focus the main points of the inquiry. What does the evidence show? Is there order and architecture in the masses of fact and argument which have been presented? Or in more forceful but less respectful language, so what?

Questions such as these have no doubt been uppermost in the minds of nearly every person who has listened to these hearings. They are questions, moreover, which no one can hope to answer except after long and patient mastery of the materials that have been placed in the record.

¹ Hearings, Part V, appendix, p. 2274.

Necessarily, what one sees in the facts now depends upon the individual set of mental corridors through which such facts have passed and the aspects filtered out as significant. All of us have blinders. It takes time to see things in their "togetherness." No one should hope to give more than a personal reaction. Consequently, the point should be emphasized that the views here expressed have the endorsement neither of the committee nor its staff. They are in short the views of a layman, one who can in no sense be called a specialist in housing and who likewise, like laymen generally, may be guilty of rushing in where specialists fear to tread.

It is often said that housing is a perennial subject of discussion and a perpetual object of gross neglect. In these hearings deep burrowings have been made into dull but important masses of fact. The whims and whams of political oratory have been conspicuously absent. A condensation of evidence of such meatiness as that here presented is impossible. All I can hope to do is to point out the items that for one reason or another seem outstanding to me personally, trusting that the members of the committee, and in particular the witnesses, will pardon me in advance for the inadequacies and distortions of emphasis that remain in this summary of their evidence.

You will remember the first witness, Dr. Isador Lubin,¹ pointed out that the construction industry in 1929 employed 5.5 percent of all non-agricultural workers, in 1938 only 4 percent. In the former year it contributed 4 percent of the national income produced; in 1933-35 only 1.6 percent. Moreover, the peak of construction, both by dollar and unit volume, was reached in 1925. The volume of all Government-aided construction, due to the drastic decline in the volume of state and local funds so used, remained for all governments, even at 1936-38 levels of federal activity, more than 10 percent below the 1925 to '31 average. In addition, the construction industry failed to suit its product to the market, building houses primarily for the small group with incomes of \$2,000 and over. The families who can afford houses costing \$2,000 to \$4,000 constituted in 1938 52 percent of the market, yet only 15 percent of the houses were built in that range. He concluded by pointing out that a bare maintenance of housing facilities somewhere near, yet under, present levels would require a construction of 525,000 units.

Mr. Robert Davison, the next witness,² director of housing research for the Pierce Foundation, pointed out in his first appearance in these hearings that the construction industry in England fits its product to the market, whereas ours does not. In 1935, for example, 93.3 percent of families in England had incomes of \$2,500 or less, but 95.7 percent of new dwellings were within their buying range; in the United States 92 percent of the families had such incomes, but only 48.7 percent of the housing built on the average in 1930-37 was in that range. The American automobile industry meets 80 percent of its low-priced car needs; the low-price home industry only 10 percent.

He also pointed out that a 20-percent reduction in material costs reduces monthly fixed charges 9.33 percent, a 20-percent reduction in labor costs reduces monthly fixed charges 4.67 percent, while a 20-percent reduction in interest and amortization costs reduces monthly fixed charges 16.69 percent.

¹ Supra, pp. 4935-4973.

² Supra, pp. 4975-4997.

The next witnesses, Smith and Dawson,¹ from a contracting firm of that name in Chicago, gave a break-down of costs of their typical house selling for \$4,800, and also the monthly costs to purchasers under F. H. A. 25- and 20-year plans. They reported that the major deterrents to building and selling houses at lower cost in their business were a 3 percent sales tax on commodities and the exercise of restraints by distributors, preventing them from buying direct from manufacturers. They expressed the opinion that the distributors' share of materials' cost is in some cases too high.

The testimony that followed, that of Mr. L. Seth Schnitman,² consulting economist, gave detailed figures on building costs per room on six large-scale projects. The labor factor varied from 21.3 to 36.3 percent; materials from 27.8 to 46.7 percent of the total; land costs from 7.8 to 34.3 percent of the total. In financing these structures, the amount of equity varied from 5.8 to 22.3 percent of the total.

From Mr. Oscar Altman, of the S. E. C. Investment Banking Section,³ the committee learned that one-fourth of 70.3 billion dollars of private long-term debt in 1937 was in mortgages on one- to four-family nonfarm homes. This amount was steadily decreasing, he said, until 1938 because of the small amounts of new construction, transfers of mortgaged property to mortgages, etc. The percentage of new mortgages insured by F. H. A. has increased from 17.6 in 1938 to more than 20 percent in 1938. Moreover, the effective interest rates have declined steadily since 1931 with experience varying in different districts.

Later testimony, that of this morning by Chairman John H. Fahey of the Federal Farm Home Bank Board,⁴ indicated: "the home owners of the United States are saving about one-half billion dollars a year."

The next witness, Mr. R. R. Rogers, vice president of the Prudential Life Insurance Co.,⁵ estimated the three elements of interest costs as (1) cost of money, 3.85 percent (this in reality is not a cost but a return); (2) risk, 0.48 percent; and (3) cost of doing business, 0.5 percent.

This testimony was in part corroborated by Mr. Morton Bodfish, executive vice president of the United States Building and Loan League,⁶ who evaluated the cost of doing business in building and loan associations, however, at 2 percent. He added that interest rates range from 4½ to 6 percent with the majority of loans at 5 and 5½ percent, although some exist at 7 and 8 percent. Furthermore, he pointed out that in 1938 the average loan of his company was \$2,200, more than half of their 365,000 loans being made in towns of less than 25,000 population.

The experience of savings banks was indicated by Mr. Henry Bruere, president of the Bowery Savings Bank,⁷ who stated that he would like to put \$10,000,000 in F. H. A. insured mortgages at 4½ percent. He also showed that 99½ percent of their new mortgages involve new construction. He expressed the opinion that mass production with careful planning of areas and enforcement of F. H. A. standards would do more to lower cost and stimulate housing than further lowering of the interest rates.

¹ Supra, pp. 4997-5014.

² Supra, pp. 5015-5040.

³ Supra, pp. 5042-5055.

⁴ Supra, pp. 5380-5406.

⁵ Supra, pp. 5055-5081.

⁶ Supra, pp. 5084-5112.

⁷ Supra, pp. 5112-5129.

Mr. Frederic W. Ecker, vice president of the Metropolitan Life Insurance Company,¹ gave an outstanding example of equity financing of large-scale low-cost rental projects. In his company's Long Island project, he stated dwellings rent at about \$9 per room; in their Bronx project they will rent at about \$32 to \$75 per apartment.

The next witness, Mr. Thurman Arnold, Assistant Attorney General of the United States,² indicated the restraints that exist in the housing field. Producers of building materials use patents, basing-point systems, price formulas, voluntary apportionment arrangements and other devices of concentrated control to limit output, allocate markets and raise prices. Distributors fix mark-ups, boycott those not routing their business through the distributive hierarchy, and the like. Contractors divide the work by use of bid depositories, central estimating bureaus, division of the field, and so on. Labor often in conjunction with contractors and distributors limit individual performance, restrict the use of labor-saving devices or new materials, and the like. Moreover, local building, zoning, and sanitary codes, together with tax and other legal restrictions, are used to implement the restrictive practices of politically powerful groups.

In conclusion, he outlined the program of the Antitrust Division to restore a larger measure of competition in home building.

Gen. Robert Wood, chairman of the Board of directors of Sears, Roebuck & Co.,³ testified that his company has built four- and five-room houses at a total cost of \$3,400 each, with monthly charges at \$25 to \$28, the total obligation being paid off in 13 to 15 years. He paid tribute to the F. H. A. which in reducing carrying charges has brought home ownership within reach of persons with small incomes. By way of illustration he pointed out that in England on a \$3,000 house, the difference between 8 and 4 percent interest over a period of 17 to 18 years was tantamount to a saving in original cost of \$1,955.

In the testimony of Mr. Wallace H. Walker, assistant general counsel, Home Owners' Loan Corporation,⁴ the fact was stressed that the expenses of title examination and proof constitute a significant deterrent to home ownership for lower-income groups. Land-title registration on the Torrens plan extensively used in Canada and elsewhere would reduce these costs to a nominal figure.

The next witness was Mr. Willard L. Thorp of the Department of Commerce.⁵ He pointed out that the construction industry was made up of small disparate local units with a product neither uniform in type nor design nor location nor size. Fifty-three percent of the employers have one to three employees. In analyzing the channels of distribution, he showed that heavier materials usually flow direct to contractors, the lighter materials through retailers and wholesalers. The importance of freight costs was shown, the percentage of total value at destination absorbed by freight being 57 percent, for example, in the sand and gravel industry. The degree of concentration for building materials as a whole was relatively small. There were many notable instances, however, where the number of firms operating in a local market was so small that census rules of disclosure forbade the publication of the precise data. In many instances, in other

¹ Supra, pp. 5129-5142.

² Supra, pp. 5144-5162.

³ Supra, pp. 5162-5168.

⁴ Supra, pp. 5168-5170.

⁵ Supra, pp. 5171-5235.

words, one firm did at least 75 percent, or two firms 90 percent, of the total business in the area.

A number of witnesses then testified briefly upon specific points, Mr. W. S. Parker, Boston architect,¹ pointing out that even residence districts commanding appreciably more than the lowest rents failed to pay their way in direct taxes, although those who lived there paid their way fully by reason of their outlays downtown for commodities in which had been compounded substantial portions of business taxes.

Mr. Gerhardt F. Meyne, building contractor of Chicago,² gave evidence of restrictive labor practices.

Mr. D. W. Tracy, president of the International Brotherhood of Electrical Workers,³ stated that 90 percent of the single-family homes costing between \$3,000 and \$15,000 were built with nonunion labor, and expressed doubt concerning the feasibility of an annual wage plan based on lower hourly earnings. Abuses of collective bargaining strength were local, relatively small in number, and of little effect upon costs, said Mr. Tracy, the outlays for electrical work, for example, constituting usually only 2 percent of total costs.

Mr. Henry J. Eckstein, president of Forests Factors,⁴ then presented his proposal for "yield insurance" by which the Government would guarantee for a limited period of time a 2½ percent return on large-scale projects of medium rental homes, any excess earnings to be used to accelerate other building. For local corporations acquiring slum and blighted sites and reclaiming them, he suggested a guaranteed rate of 3½ percent.

Mr. Gerard B. Lambert described a housing project in Princeton, N. J.,⁵ costing \$3,000 per unit, renting at \$6.25 per room per month, tax exempt for a period of about 20 years, after which property reverts to the municipality.

Mr. Davison⁶ was called back on the stand to elaborate his suggestions for a thoroughgoing governmental research program to explore in particular the technical aspects of housing, such as the performance of materials, standard specifications, and the like. Pointing to the \$10,000,000 being spent on aeronautic research, he expressed the belief that technological research in the housing field might reduce the original costs of a home by as much as one-half.

Colonel Lawrence Westbrook,⁷ head of Lawrence Westbrook Associates, Inc., then testified on a plan under successful operation in which the governmental agencies put men to work developing building sites, providing them with streets, sidewalks and access to utilities, financial provision being made that such be used to reduce the cost of housing to the home buyer or renter.

Mr. Arthur W. Binns, engineer and builder of Philadelphia,⁸ described a highly successful project of slum remodeling and rehabilitation.

Finally, Mr. John Fahey, chairman of the Federal Home Bank Board⁹ and Mr. Nathan Straus, Administrator of the United States

¹ Supra, pp. 5235-5245.

² Supra, pp. 5245-5257.

³ Supra, pp. 5260-5290.

⁴ Supra, pp. 5281-5303.

⁵ Supra, pp. 5303-5315.

⁶ Supra, pp. 5317-5340.

⁷ Supra, pp. 5340-5357.

⁸ Supra, pp. 5357-5377.

⁹ Supra, pp. 5380-5406.

Housing Authority,¹ presented to the committee brief summaries of the work of their respective agencies, indicating the importance assistance which the Federal Government is already giving in the housing field.

From even so brief a summary of the evidence presented to the committee, the fact emerges clearly that housing problems most assuredly will not yield to superficial treatment. Nor can they be exorcised by the power of a pet idea or panacea or even of a single method of approach. For they are in reality phases or parts of the great unsolved economic problems of our day. Speaking realistically, one ought not to talk about a housing problem but about multitudes of economic problems focused in housing. Housing is a microcosm in which are mirrored and embodied (to be sure, in distinctive form) the dominant economic problems of modern time. Whatever solves these economic problems will provide a solution for housing, but the reverse is not true, though of course a housing boom would provide a strong fillip to the economy.

To cite but one example, the report prepared for the president on "Economic Conditions of the South" shows clearly that there exists a larger need for adequate housing in the South than elsewhere in the United States.² Indeed, in that area more than 1½ million below-standard houses are said to exist. "By the most conservative estimates," the report goes on to state, "4,000,000 southern families should be rehoused, which is one-half of all the families in the South." Yet not only are home-building costs low there, with trade union organization there ridiculously weak, but we find there an abundance, such as it is, of low rent housing. "In 19 southern cities," according to the report, "over 40 percent of all dwellings rent for less than \$15 a month or are valued at less than \$1,500." Clearly, the solution of the housing problem in the South lies mostly in solving the economic problems of the South rather than the reverse.

By this I do not wish to imply that economic problems are the only ones involved in housing. There are numerous other phases. At one time a group of us working for the National Resources Committee interested ourselves in making a list of the factors which might raise difficulties in the building of more houses or cheaper houses. I thought the committee might like to see what such a list would look like—every one of them a dominant, crucial problem in some particular area.

Similar lists have been published in the Architectural Forum. They usually enumerate scores of items, such as movements of population, growth of population, family size, family incomes, growth of industry, migration of industry, availability of public services such as gas, electricity and water, housing and city planning regulations, inspection, building, health and zoning ordinances, legal regulations governing transfer and certification of title, mortgages, deeds, taxes, tenure, and the like, patterns of site planning, neighborhood development, nearness to parks, schools, playgrounds, churches, railway depots, shopping centers, and so on.

If the house is already built someone else has gone through the ordeal of acquiring the real estate and set in motion activities among dozens of contractors, subcontractors, dealers and, of course, ultimately the manufacturers in a host of industries producing and dis-

¹ Supra, pp. 5407-5431.

² Prepared by the National Emergency Council, July 25, 1938.

tributing the heterogeneous list of materials which is found in an ordinary house. All of these facets have been abundantly demonstrated in the evidence given before the committee.

Whether a person builds his own house, rents it, or buys it already built, the monthly carrying charge is the important item. This, it should be noted, varies not with the original costs of labor, materials, land, and so on, but with the purchase price of the house which frequently has very little relationship to such original cost. What a house will sell for depends on real estate activity, realtor methods of selling and advertising, shifts in fashionability of residential district or style of house, and other accidental factors, not omitting the all-important factor of the personal equation of buyer and seller. Original cost and sales price neither rise nor fall together, even in the same city, for the same type of house at the same time.

Again, in commenting on the evidence presented in the hearing, I should like to note the fact that we are entering a period of larger housing need than any ever experienced to date. Population studies show that the largest net addition to the total population in the United States occurred in the decade from 1920-30. During the middle thirties the crest was felt in the primary schools although it has begun to subside in some of the early grades. At the present time the crest is being felt in the secondary schools. In another 3 or 4 years they will be in college and in the period between 1943 and 1950 they will become 25 years of age, form new families, at which time there will be an all-time peak in new home need.

In addition, there seems no likelihood of a break in the downward trend in the size of family which since 1850 has caused the number in a family to go down from 5.56 persons to almost exactly 4 at the present time. Thus despite a decrease in the rate of growth of population, the number of families will probably continue to increase.

Moreover, population growth means the sum of all increases in population rather than a net change in total. The increasing mobility of enterprise means larger shifts in the population such as that which has occurred from the Dust Bowl area to California, creating in California in recent years an acute housing problem for a population which while still regarded as transient or even migratory will to some degree settle down and require more housing.

Unfortunately, the increase in the number of new families will be predominantly in the low income groups, groups which are unable at the present time to buy homes. Due to lack of security of employment and of industrial stability coupled with the fact that the number of persons of low income with adequate savings to make a down payment is relatively small, most of these families will have to try to find rental accommodations which they can afford.

It is interesting to note that not one of the witnesses testifying at these hearings believed that persons with annual incomes of less than \$1,500 should own their own homes. They can ill afford to put their vitally important but small nest-egg of savings in a basket so likely to be bumped around as housing.

The accommodations which they can afford, as has been abundantly pointed out in the testimony, are not being produced at the present time. When one looks at the income pyramid, one finds it broad at the base but the housing that is constructed is constructed predominantly for the high income groups.

I would like to refer to the chart reproduced in the pamphlet before you.

(The chart referred to was marked "Exhibit No. 933" and appears on p. 5440. The statistical data on which this chart is based are included in the appendix on p. 5565.)

Dr. KREPS. This represents the material collected by the National Resources Committee and published last September in a monograph called "Consumer Incomes in the United States, Their Distribution in 1935-36." That material has been collected together and presented here in a different form. The division lines are, of course, arbitrary, subject to disagreement. I have simply called those that get less than \$750 a year total incomes—families in all cases, families facing starvation. Notice that there are 8,000,000 of such families. Incidentally, they have an average income of \$40 a month. They spend about \$52 a month.

The next group of the 11,000,000 families get incomes between \$750 and \$1,500. Now more than two-thirds of the families have been covered. The next group I have called the comfortable, middle class. They get from \$1,500 to \$3,000 a year.

The fourth group I have called families on the luxury level, 1,585,000 that get over \$3,000 and less than \$5,000 a year. Finally, the savers' level, those getting over \$5,000 a year comprising 800,000 families is called the savers' level because they do about 85 percent of all the saving. I do not present on this chart the group getting over \$10,000, because of graphical limitations.

Housing that is constructed is constructed predominantly for the high-income groups. In fact if you impose the American housing structure upon this you get an inverted funnel arrangement.

The CHAIRMAN. May I interrupt you there? I have just glanced at the footnote of your chart, "283,000 families with incomes over \$10,000 get as large a share of the total income as nearly 11,000,000 families at the bottom." I wonder if that is completely accurate.

Dr. KREPS. Yes, sir.

The CHAIRMAN. The 11,000,000 families to which you refer are those with incomes between \$750 and \$1,500?

Dr. KREPS. No; 8,000,000 of those are getting less than \$750 a year.

The CHAIRMAN. The 11,000,000 families to which this footnote refers are evidently the 11,000,000 in the cross-hatched area.

Dr. KREPS. No.

Mr. FRANK. Including part of the bottom.

The CHAIRMAN. Oh, I see; it doesn't refer to that group.

Dr. KREPS. No; it refers to the 11,000,000 families at the very bottom.

The CHAIRMAN. Then this comparison is between the 283,000 families with income over 10,000 and the 8,000,000 in the lowest classification with 3,000,000 of the next highest.

Dr. KREPS. Yes, sir.

The CHAIRMAN. And the total income of those 11,000,000 would be or is less than the total income of the 283,000 above.

Dr. KREPS. Yes, sir.

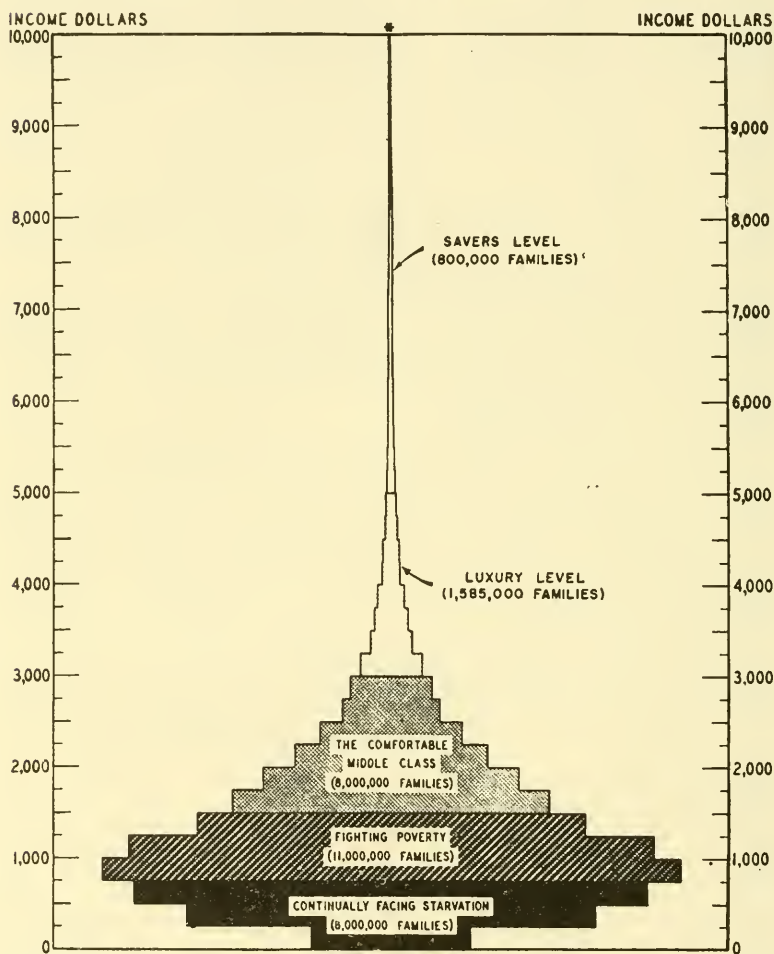
The CHAIRMAN. Thank you.

Dr. KREPS. The American housing structure, you see, is the reverse of this income pyramid. It is like an inverted funnel in which new construction enters at the top and is successively handed down. In

recent years that new construction has not even been equal to demolitions and the requirements of new families. As was pointed out in the testimony of Mr. Davison, if the automobile industry pursued a similar policy, the country would be full of high-priced cars of

EXHIBIT No. 933

INCOME LEVELS IN AMERICAN LIFE



⁴ 283,000 families with income over \$10,000 get as large a share of the total income as nearly 11,000,000 families at the bottom. The largest income, that is the highest point of this pyramid if drawn on a vertical scale 1" = 1000 dollars, would be 350 feet higher than the top of this chart.

varying ages.¹ Instead of Fords, Plymouths, and Chevrolets, we would be driving around Lincolns and Cadillacs, or rather the low-income families would be driving around one-half a Lincoln or one-third a Cadillac in the way that a spacious house built for a person of relatively high income is cut up, inappropriate as may

¹ Supra, p. 4985.

be its design, plumbing arrangements, and so on, into parts which house two and three and four families poorly, in discomfort and squalor.

Simple computations indicate that the rate of hand-me-down during the twenties was about once every 11 years. At that time about 25 percent of the families, or 6,000,000 of them, could afford the housing currently produced and roughly 700,000 units were being produced a year. If, however, the new housing being constructed in recent years is to be handed down sufficiently quickly to keep up the level of housing for the population as a whole, those now buying new houses would have to do so once every 4 years. In 1936 about 85 percent of the homes were built for the upper 10 percent of the income classes. To provide 700,000 new dwelling units a year, the 2,900,000 families constituting the upper 10 percent would have to move into a new home at least every fourth year.

Housing, it should be emphasized, is distinctly a local enterprise and varies not only within localities but between them. Within a community residential rents and values vary with such factors as age, type of structure, size, materials, and convenience. But there are enormous regional and intercity differences reflecting differences in climate, industrial, commercial, and agricultural enterprise, race, nationality, and local customs and traditions.

A study of the National Bureau of Economic Research shows that the average value of a house on the farm is considerably less than half that of a house in cities of 25,000 to 100,000.¹ In fact, there is a steady decline in the average value of a home or the rent it will bring as one goes from the large center of 100,000 or more to the villages with less than 2,500 population. In the East South Central States the average value of nonfarm residences was, of all ages and types and descriptions, about \$2,700, only slightly above one-half of the national average of \$5,022 for the country as a whole, and 63 percent lower than the average of \$7,200 for the States of New York, New Jersey, and Pennsylvania.

Similarly, the rents paid are lowest in the Southern States and highest in the Middle Atlantic and Pacific Coast States. Even for cities of 100,000 or more, the average rent that dwelling units bring or will bring in the State of Florida is only \$25 a month as compared with more than \$48 in New York and Illinois. Similarly, in localities of less than 2,500 population, the average rent is less than \$10 in States like North Carolina, South Carolina, and Georgia as compared with figures in excess of \$23 in New York, New Jersey, and Connecticut. Obviously, the housing problem is distinctive in each of the cities and each of the regions of the United States.

The dual charts presented below show these facts.

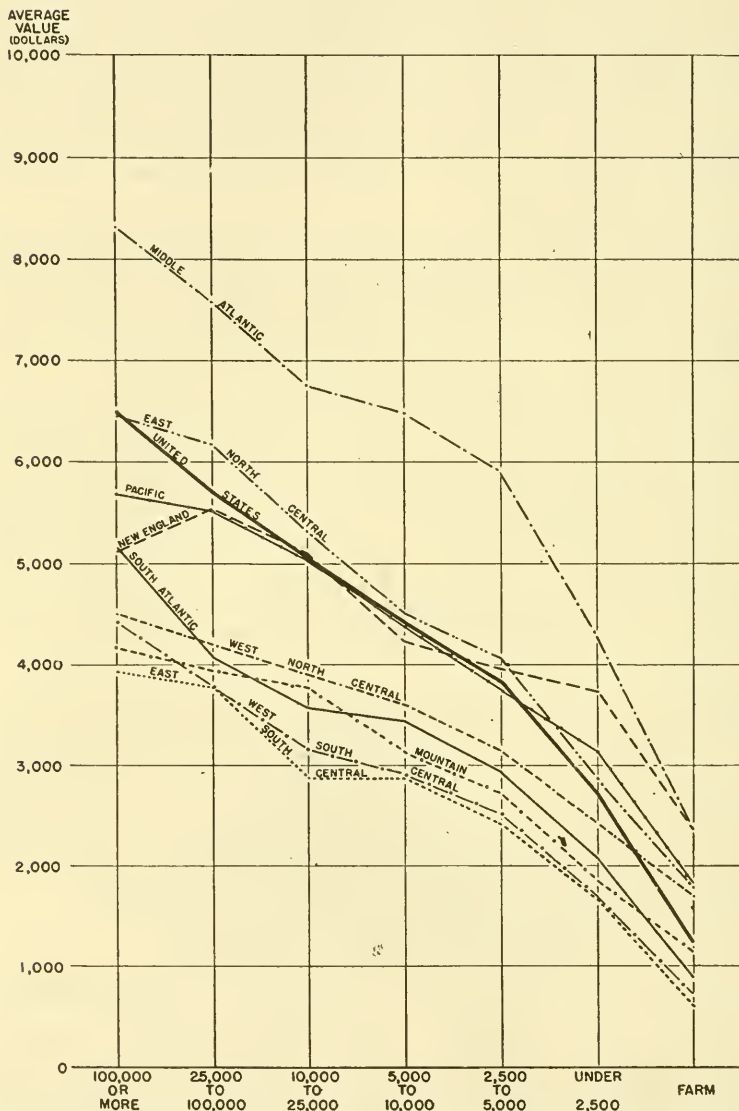
(The charts referred to were marked "Exhibits Nos. 934 and 935" and appear on pp. 5442 and 5443. The statistical data on which these charts are based are included in the appendix on p. 5566.)

Dr. KREPS. In similar fashion the home-building industry is merely an aggregate of local industries. About 30,000 parts go into a house, if one counts only the items which must be ordered as such and omits nails, screws, hardware, and the like. More than 500 operations are involved, practically all of them requiring skill. About 40 skills or trades, 200 items of equipment, and usually 15 or more separate con-

¹ Bulletin 75 *Differentials in Housing Costs*, by David L. Wickens, New York, September 17, 1939.

EXHIBIT No. 934

ESTIMATED AVERAGE VALUE OF ALL DWELLINGS

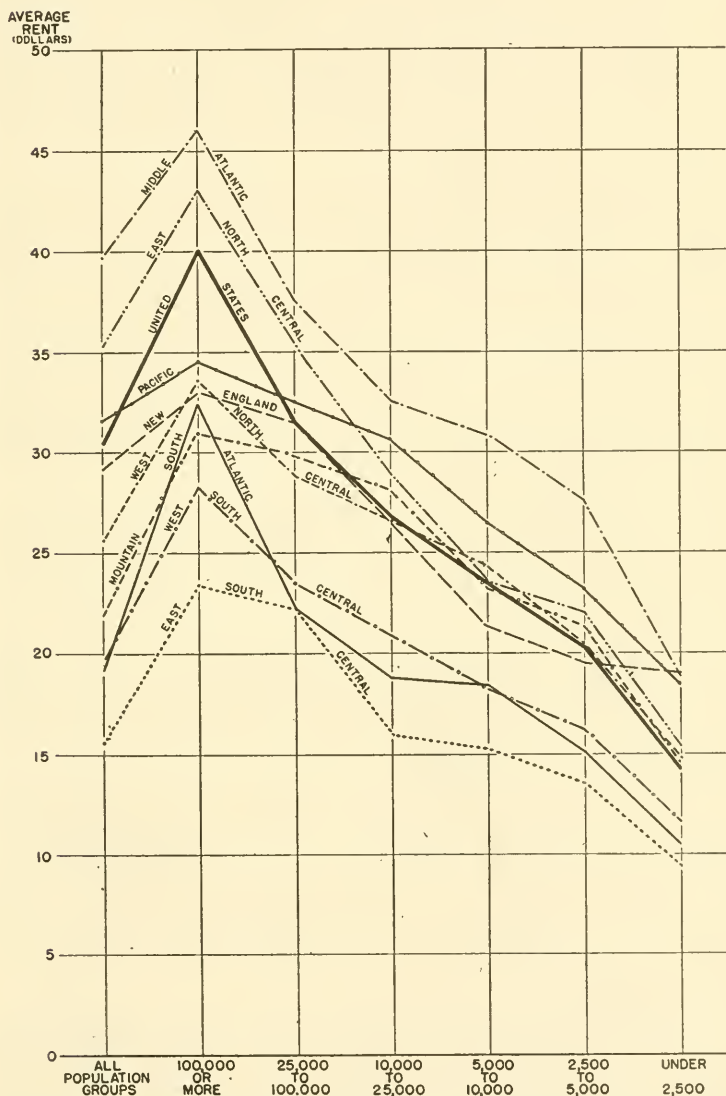
BY SIZE OF CITY, OF FARM OPERATORS DWELLINGS
ON FARMS, AND BY GEOGRAPHIC DIVISIONS, 1936

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EXHIBIT No. 935

ESTIMATED AVERAGE MONTHLY RENT OF ALL DWELLINGS

BY SIZE OF CITY AND GEOGRAPHIC DIVISION, 1930



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tracts are required, the latter usually panoplied with contingency allowances, hit or miss estimates, guarantees of proper performance of separate parts, and the like.

It is this local, disintegrated, handicraft, uncoordinated character of the industry that provides a perpetual and spontaneous breeding ground for efforts at integration. Almost universally there have grown up local tie-ups, reciprocity arrangements between contractors and building materials, dealers, between architects, building supply houses, and building and loan associations or banks, and between contractors and labor organizations. Local pressure is often utilized to keep the contracts in the community, particularly where local dealers or contractors have perfected arrangements for dividing the local market between them.

Contractors who know their subcontractors and who have semi-permanent arrangements with them add an element of efficiency to the building operation which can otherwise be achieved only by corporate integration or large-scale operators. Added to these economies is the fact that the demand for housing is a joint demand. If an extra 25 percent is charged for one material, plaster for example, the net increment to the total cost of the house may be but a fraction of a percent. Each factor is tempted to get more for the service it renders. Consequently, the stimulus to achieve profitable restraints is an organic part of the industrial organization of home building. Even if broken up by competition or governmental action, they tend immediately to grow back much in the way a man's beard grows out again after each morning's shave.

Not only do clean sweeps of all restraints, even if made simultaneously in many localities, tend to be short-lived in their effectiveness but the economic gain to be derived, while substantial, may not be of primary importance. This appears clearly from a consideration of building costs.

The original cost of a house is not the same as its selling price. And it is made up of a host of factors, notably land, labor, and material costs. The proportions vary greatly with the region, the city, the type of housing, the prices of materials, the wage rates and efficiency of labor, the scale of operations, and the like. Certain rough averages may serve as points of orientation.

For owner-built homes, the expense of getting the land and adapting it for use usually constitutes from 15 to 25 percent of the total outlay for the house, the on-site building cost constituting the remainder. Labor usually gets from 25 to 30 cents of the home builder's dollar, the materials dealers from 40 to 55 cents, the remaining 10 to 15 cents going to overhead and profit. These averages summate the prices and quantities of scores of materials and types of skill, none of them comprising a substantially large part of the total, with probably the exception of lumber.

If the reductions in price or wage rates are moderate, say less than a third, and apply to relatively few items in the large aggregate, the effect on total capital cost is clearly likely to be small, even when fully translated to the consumer and not absorbed in the numerous interstitial spreads and profits of suppliers and dealers.

Again the fact appears clearly that no single procedure can do more than solve a part of the many complicated problems which obstruct the realization of adequate housing. But the doing of that part may

be extremely important, as important, for example, as repairing the bearings of an automobile.

The behavior of building-materials' prices in the period from June of 1936 to June of 1937 is an excellent case in point. At that time a sudden rise in materials' prices was probably the controlling variable, accounting in no small degree for the collapse of an incipient home building boom. The prices of most important kinds of lumber were, in June, 1937, from 15 to 25 percent higher than in 1929.

I would like to refer to the second of the tables that have been reproduced in order to recall price increases in the most important building materials, 1929, 1936, and 1937.

(The table referred to was marked "Exhibit No. 936" and is included in the appendix on p. 5566.)

Dr. KREPS. The items are listed there in two categories, one of materials which were above 1929 levels in price in 1937, and the other materials that were below and had not yet reached 1929 levels in the summer of 1937. No comment is necessary. It is quite clear that in all these materials there were substantial periods of price inflexibility. These periods are noted in the last column, the periods of price inflexibility, and it should be noted that such price inflexibility characterizes not only the materials that rose above 1929 levels in price, but characterizes those that did not rise to the 1929 levels in price.

Among these materials, one important variety was as much as 34 percent higher than in the base year 1926. Plaster was double what it was in 1929, cast-iron soil pipe 49 percent higher, even sand and face brick were more than 10 percent higher.

In most of these industries prices had begun to be stable for months at a time. But this was likewise true of building materials that had not risen so high. The crucial difference, however, lay in the fact that the latter were finished products such as plumbing and heating equipment, paint, and specialty hardware, products ready to be delivered to the consumer, often under advertised trade-marks. In some cases, however, the actual installed cost to the consumer of these finished products which did not rise to 1929 wholesale price levels were raised to high levels through the competitive practices prevailing among contractors and subcontractors. The former were raw materials or semiprocessed goods such as softwood lumber, structural steel products, sand, and cement. Moreover, the prices of finished building materials usually apply to the product of one firm in one market, while the latter are in many cases composite figures of prices quoted by many plans in many markets. Needless to say, such composites show a larger degree of flexibility than actually exists for they change whenever price quotations change in any one of the several markets covered.

I shall note at this time that there is no uniformity in the prices of materials. While these national averages about which I have been speaking show a behavior indicated in any local market, there will be substantial differences of behavior between markets. There is competition, for example, in many localities in brick, not in others. It is almost impossible to trace the exact relationship.

To show the difference in what the contractor has to pay for various types of materials, I refer to a table which is called "Prices of 5 principal construction materials in 27 States as of June 15, 1937."

(The table referred to was marked "Exhibit No. 937" and is included in the appendix on p. 5568.)

Dr. KREPS. You will note enormous variations. In some areas brick is as low as \$6 a thousand, and in others as high as \$26.20. Similarly, considerable variation exists in the price of lumber. In cement, the variations seem to be more regular. Crushed stone or gravel likewise show variation. A good deal of that is due to transport cost and local circumstances.

The major reason for the strategic importance of the price rise in building materials in the period from June of 1936 to June of 1937 is in part to be found in the fact that these were primarily responsible for a considerable unbalance in prices as a whole.

I should like at this point to refer to a chart that Dr. Thorp has already introduced into the record.¹ This chart shows that the prices of producers, goods for capital equipment and of building materials rose particularly quickly in the spring of '37 and have since remained considerably higher than the index for all commodities. To establish the importance of this will require a bit of theoretical analysis.

Sharp alterations in price relations often bring in their wake a shift in purchasing power from group to group and usually a disturbance in the balance that may have prevailed between the volume of production and the available ability of consumers to absorb that production. Less is usually taken of those things that require a great deal of our labor in exchange. Thus a comparison of the real cost of building materials as well as capital goods used in production is made not by comparing merely their prices but by comparing their prices with the prices of other things. It is interesting to note that the behavior of the exchange value of building materials and of producers' goods used in capital equipment since 1929 has been considerably different from that which we previously knew in our industrial history. Professor Frederick C. Mills, of Columbia University, has devoted three notable volumes to this contrast.² He notes, for example, that—

From 1907 to 1908, when all commodities at wholesale declined 7 percent in price, processed goods intended for use in capital equipment dropped 12 percent.

* * * The prompt revival of demand and early recovery among industries producing capital equipment that were thereby stimulated constituted one of the major forces contributing to general economic recovery. Against this background of more or less conventional cyclical behavior the relatively high prices of capital equipment during the 1921-22 revival and their recalcitrance after the 1929 recession were unexpected and disturbing.³

The story is similar for building materials. In a table Mills shows that in February 1933 the per-unit purchasing power of building materials was 50 percent above 1913 and that for producers' goods used in capital equipment 34 percent.⁴ At the end of 1938 the story was substantially similar.

I should like to point this out in three charts. Before I proceed with them, I want to say in contrasting the behavior of prices that even within the same industry the prices of articles in which a good deal of bargaining power exists among buyers, or their bargaining power

¹ See "Exhibit No. 915", *supra*, pp. 5231-5232.

² *The Behavior of Prices*, National Bureau of Economic Research, Inc., New York, 1927; *Economic Tendencies in the United States*, National Bureau of Economic Research, Inc., New York, 1932; *Prices in Recession and Recovery*, National Bureau of Economic Research, Inc., New York, 1936.

³ *Prices in Recession and Recovery*, National Bureau of Economic Research, Inc., New York, 1936, pp. 143-144.

⁴ *Ibid.*, p. 142.

is potent, tend not to rise so fast and not to rise so high as prices for materials in which their bargaining power is not so strong, or not so intelligent.

You will note in this chart there are two types of sheet steel, galvanized sheets and automobile body sheets.

(The chart referred to was marked "Exhibit No. 938" and appears on p. 5448. The statistical data on which this chart is based are included in the appendix on p. 5569.)

Dr. KREPS. The price of automobile body sheets is shown by the dotted line. That of galvanized steel sheets by the top line. Note the spread that occurred particularly since 1931. The price of galvanized steel sheets has remained consistently above that of automobile body sheets.

Now, turning to the charts that show exchange value, notice first the exchange value of iron and steel as compared with the volume of nonresidential construction.

(The chart referred to was marked "Exhibit No. 939" and appears on p. 5449. The statistical data on which this chart is based are included in the appendix on p. 5569.)

(Mr. Frank assumed the chair.)

Acting Chairman FRANK. Are you introducing these charts?

Mr. O'CONNELL. They have not been introduced. I would suggest that the reporter be instructed to include them all in the record in appropriate places.

Dr. KREPS. You will note here a rather interesting inverse relationship between what you might call the expensiveness of a material and its use. As the exchange value of iron and steel rises—you see that represents in essence what other people had to give of their labor in order to get hold of iron and steel, obtained by dividing the price of iron and steel by the index of wholesale prices published by the Bureau of Labor Statistics—as that curve rises, the curve of construction falls. As that curve falls, the curve of construction rises.

The other charts are self-explanatory. This chart showing the relationship between Exchange Value of Brick and Tile and New Homes Built tells a similar story.

(The chart referred to was marked "Exhibit No. 940" and appears on p. 5450. The statistical data on which this chart is based are included in the appendix on p. 5570.)

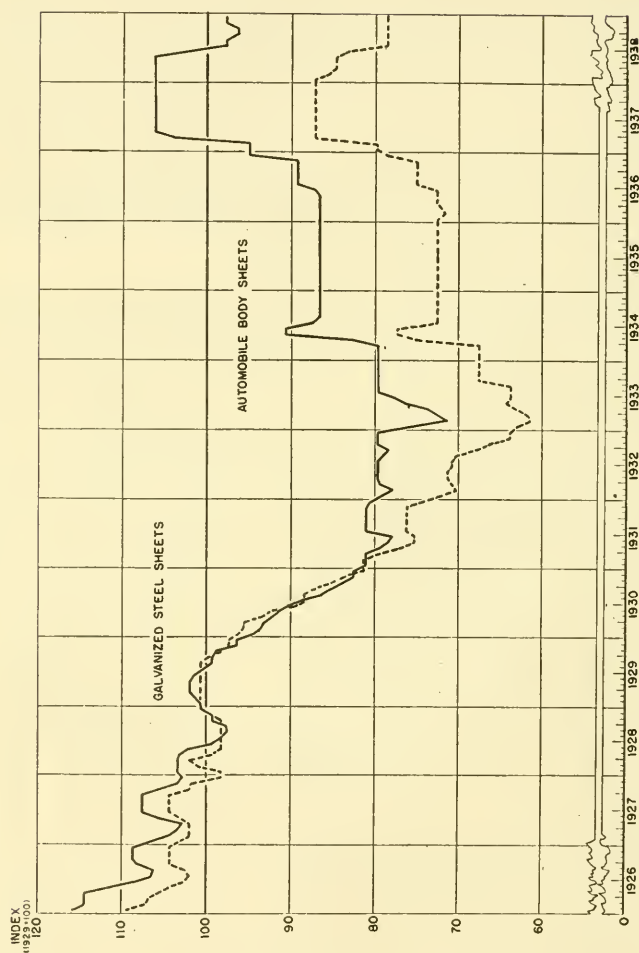
Dr. KREPS. As an article becomes more costly, people don't buy so much of it.

The next one, Exchange Value of Lumber and New Homes Built, shows a somewhat similar relationship.

(The chart referred to was marked "Exhibit No. 941" and appears on p. 5451. The statistical data on which this chart is based are included in the appendix on p. 5570.)

Dr. KREPS. I have just read you that portion of Mills' summary of his researches in his three volumes in which he points that one of the dominant reasons for the refusal of people to buy durable producers' goods and building materials is this high exchange value or real purchasing power of these goods. In looking around for an explanation why the pattern of recovery since the World War, particularly since 1929, has not followed that of earlier periods beginning, that is, with a rapid expansion of the durable-goods industries, Mills, and I believe most economists, emphasize this fact of the relatively high

EXHIBIT No. 938
WHOLESALE PRICE OF GALVANIZED STEEL SHEET AND AUTOMOBILE BODY SHEETS
UNITED STATES, 1926=1938

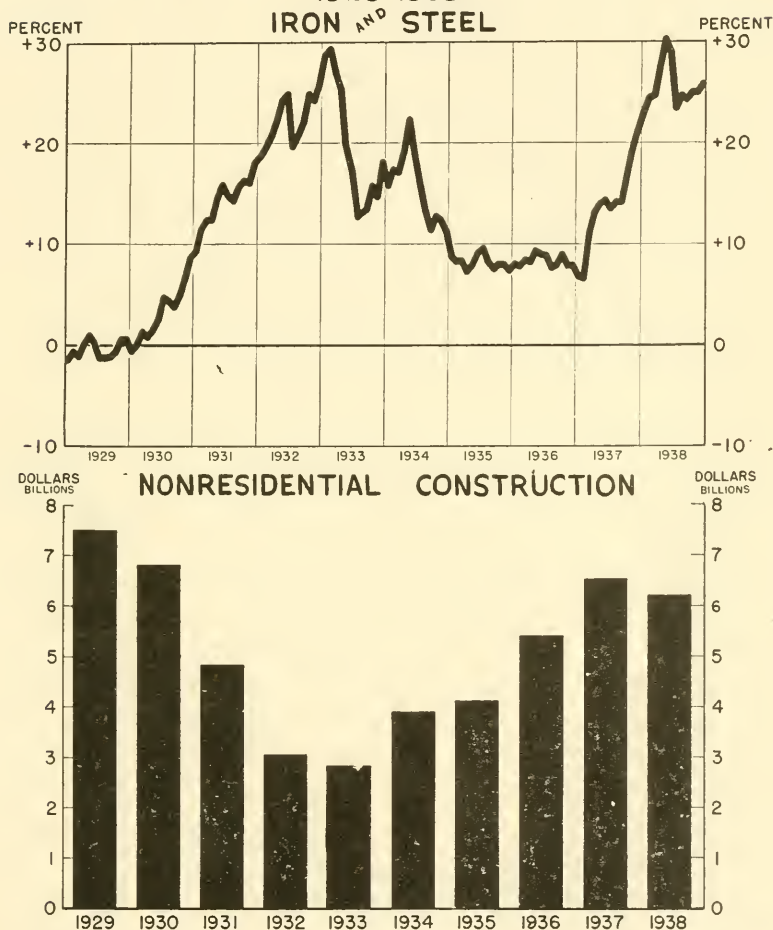


SOURCE: BUREAU OF LABOR STATISTICS

EXHIBIT No. 939

EXCHANGE VALUE OF IRON AND STEEL AND NONRESIDENTIAL CONSTRUCTION

1929-1938

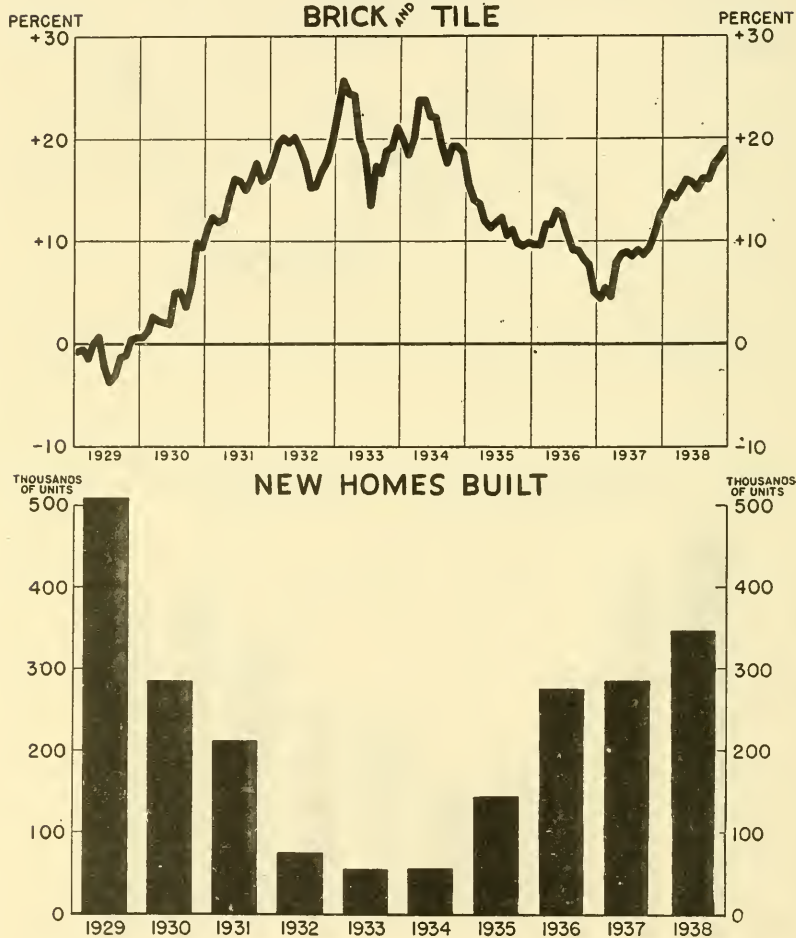


U S BUREAU OF LABOR STATISTICS

EXHIBIT No. 940

EXCHANGE VALUE OF BRICK AND TILE AND NEW HOMES BUILT

1929-1938

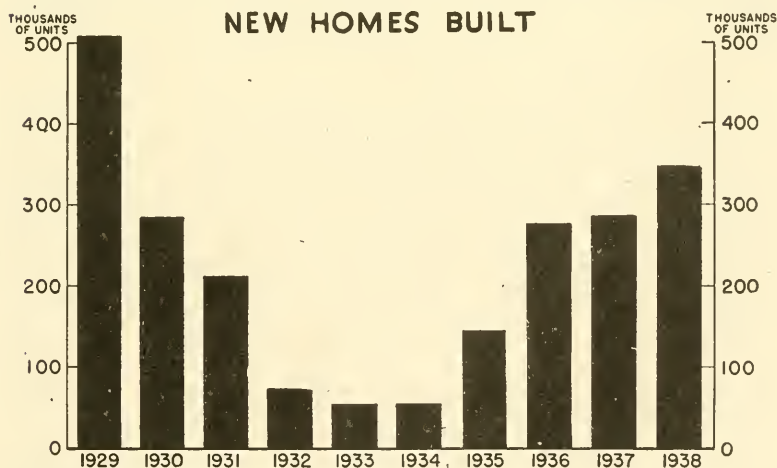
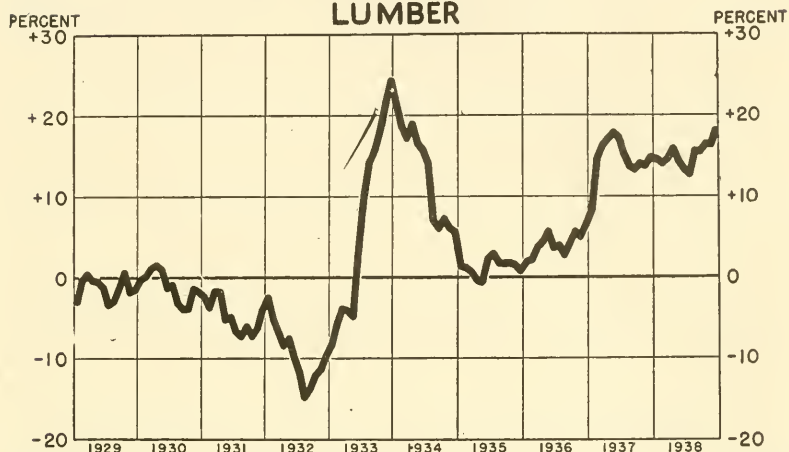


U S BUREAU OF LABOR STATISTICS

EXHIBIT No. 941

EXCHANGE VALUE OF LUMBER AND NEW HOMES BUILT

1929-1938



U S BUREAU OF LABOR STATISTICS

expense of building materials and of producers' goods producing capital equipment.

Acting Chairman FRANK. You mean they are more rigid today than they were in those earlier periods?

Dr. KREPS. It isn't a matter of rigidity primarily. It is that the community has to give more of its services, give more of the things it produces in order to get the same unit amount of the producers' goods produced by capital equipment or by building materials.

Acting Chairman FRANK. What accounts for that primarily?

Dr. KREPS. We don't know. We don't know why building materials, producers' goods used in capital equipment stayed on a high plateau after the World War. We have many ideas. Mills himself lists among those the existence of various devices intended to keep prices up or freeze them, a thesis which you also find amplified in Dr. Moulton's book on Income and Economic Progress.

Acting Chairman FRANK. My recollection is that Mills placed considerable emphasis on inflexibility.

Dr. KREPS. That is true. There are, of course, items, however, that are equally inflexible insofar as price behavior is concerned, which none the less are cheaper in terms of what people have to earn, how hard people have to work.

Caution must again be observed to note that the story varied considerably from city to city. In the period from 1936-37 we find building-material prices rising in general about 25 percent but as is evident from data in successive issues of the Home Loan Bank Review there were considerable differences between various cities of the country.

The next to the last table in the folder placed in your hands consists of three pages. It is entitled "Cost of Labor and Materials for Construction of the Same Standard House in 26 Specified Cities, 1936 and 1937."

(The table referred to was marked "Exhibit No. 942" and is included in the appendix on p. 5571.)

Dr. KREPS. The Federal Home Loan Bank Board since January of 1936 has been collecting figures on costs of home building. In a study of the 26 cities for which data were available from June of 1926 to June of 1937, labor costs actually fell in 6 of them, to wit, Providence, Nashville, Indianapolis, Oshkosh, St. Louis, and Omaha, and this at the very time that in 18 of the 26 cities materials' costs rose more rapidly than total costs, in every case adding more than twice as much to total building costs as did increases in labor costs.

All this I am using to point out the strategic importance at certain periods of time of such things as increases in the prices of building materials.

Acting Chairman FRANK. Is there any indication in your studies that the industries engaged in making those materials themselves have suffered from the fact of the high costs?

Dr. KREPS. I think decidedly so. That is, often the short-sighted policy has long-run consequences which are damaging to the industry as a whole, even though the short-sighted policy seems advisable to the individual concerned.

Acting Chairman FRANK. Intelligent self-interest would indicate that they might well reduce their prices rather than raise them or maintain them.

Dr. KREPS. Dr. Sprague, of Harvard, has presented a proposal which Mr. Arnold referred to in his testimony; ¹ namely, simultaneous reduction of all prices all the way around.

It is clear, then, that inaction during this particular period of the last housing boom—that is, not getting after this increase in prices—entailed serious consequences not only for housing but for the entire economy.

(Senator O'Mahoney resumed the chair.)

Dr. KREPS. In this connection I have two tables. One is of rather frightening length, but it none the less gives the data.

(The table referred to was marked "Exhibit No. 943" and is included in the appendix on p. 5574.)

Dr. KREPS. These figures on earnings have not yet been published to date by cities, in a large number of cities, at any rate, nor by types of skill, skilled workers, unskilled workers, and semiskilled workers. They indicate the price the contractor pays—this is something different from the union wage rate quoted which is sometimes about as nominal as some of the price quotations one hears about. This gives the actual wage rate paid by the contractor, the amount of union labor, the amount of nonunion labor, and the differences in wages for types of skill in this country.

The CHAIRMAN. By whom was this compiled?

Dr. KREPS. By investigators in the field, of the Bureau of Labor Statistics, collected for—I forget the exact number of cities, but it is a large group of them.

The CHAIRMAN. Who sponsors it? Was it done under the direction of Mr. Stone?

Dr. KREPS. No. It was done by the Bureau of Labor Statistics.

The CHAIRMAN. So it comes to the committee now through you as the work of the Bureau of Labor Statistics?

Dr. KREPS. Precisely.

The CHAIRMAN. Is it desired to present that for publication in the record?

Dr. KREPS. It is an elaborate table but it once and for all gives the first information we have by cities of the extent of union organization and of the actual rates paid, then in force when this investigation was made.

The CHAIRMAN. How does this compare with the testimony of Mr. Tracy a few days ago, that at least 80 percent of the labor in family housing, residential housing, is nonunion labor? ²

Dr. KREPS. First of all, I believe Mr. Tracy's statement applied to one-family residential dwellings.

The CHAIRMAN. I don't think so. It applied to all the residential construction. It applied probably more particularly to his own trade, namely, electrical workers. I think he gave that as a conclusion. However, what is your conclusion?

Dr. KREPS. Well, this gives all the facts by types of skilled trade, unskilled, and semiskilled.

The CHAIRMAN. Does it show as low a degree of unionization as Mr. Tracy's testimony indicated?

Dr. KREPS. Not when you take in all residential construction. I have here the figure to which I shall come presently. 43 percent of all labor engaged in residential construction—is nonunion labor.

¹ Supra, p. 5153.

² Supra, p. 5267.

The CHAIRMAN. Without objection, the table may be admitted in the record.

Mr. FRANK. This table indicates that the union scale is not necessarily what is paid and it indicates the difference between the union scale and the actual amount paid?

Dr. KREPS. Quite so.

Mr. FRANK. And the amount paid is frequently very much less?

Dr. KREPS. Quite.

The CHAIRMAN. Does that mean that the so-called prevailing rate of wages is not ordinarily paid in ordinary construction?

Dr. KREPS. I can't say so, but I can say that the published union rate of wages is frequently just that, a posted price, a published rate, and that there are various devices whereby, particularly in periods of great unemployment, lower effective payments are made.

Moreover, wage rates in no way fluctuate inversely or directly with labor costs.

The last table which I shall present is one which was compiled by Dr. Evans in a study which he made for the Natural Resources Committee.

(The table referred to was marked "Exhibit No. 944" and is included in the appendix on p. 5587.)

Dr. KREPS. It indicates the labor-cost ratios and hourly wage payments for education buildings erected with N. I. R. A. funds, 1933-36. A glance at the statement will show that wage rates have no relationship to labor costs. There are many cities, if you look at this table, in which wage rates are high and labor costs are low, and the reverse, of course, is likewise true.

It is usually in prosperous times that building-trade unions secure higher hourly wage rates and develop restrictive practices. In periods of low activity union wage rates tend to be as nominal as certain inflexible price quotations. To those who believe that lowering the wage rates is a panacea for all the ills of housing, the question should be put, Why, if low wage rates stimulate housing, isn't adequate housing being provided in those areas such as the South, where wage rates are lowest and housing needs are greatest?

Moreover, those afflicted with low-wage-rate myopia seem to forget the difference between hourly wage rates and weekly and annual earnings, a factor of no small importance in an industry where men are lucky to work 160 days a year. I have seen some people with this myopia stoop to the statistical trick of comparing the earnings of building labor, nearly four-fifths of it highly skilled, with the earnings of laborers in industries requiring but little skill. Moreover, they frequently forget that labor costs depend primarily on the effectiveness of labor. It is a commonplace in the experience of the ordinary man that the cheap doctor is by no means the least expensive. Manufacturers like Mr. Ford have long since demonstrated that the highest paid labor is often least costly. Precisely from the areas of our highest wages we export automobiles to all parts of the world. The economist's explanation is simply that men tend to get what they earn—in technical language, wages are determined by the marginal net productivity of labor. That doctors and lawyers have different incomes and charge different fees even though they are in the same occupation is a commonplace, but there are many who do not seem able to apply such elementary common sense to other skills.

As a final consideration the fact should be noted that by no means all of the building laborers are organized, especially in residential housing. In a survey made by the Department of Labor published in August 1937 it was found that more than 43 percent of the laborers engaged in residential buildings were nonunion men.¹ This proportion of course varies extremely as between cities. In San Francisco, Chicago, and a few other cities all residential construction, including both single-family and multi-family units, is claimed to be union. On the other hand, in Washington, Baltimore, New York, Boston and in many of the other cities for which information is available, the unions control but a small fraction of the one- and two-family construction, and only a fraction of the multifamily construction.

Throughout the hearings capital costs have been sharply distinguished from carrying costs. Which of these is the primary determinant in setting a resistance point to the ability of consumers to buy has been an item of considerable controversy. But the importance of the interest rate in the carrying charges of a home is often underestimated. In a study made for the National Resources Committee on residential building, Dr. Lowell Chawner, of the Department of Commerce, states.²

"It may be observed that equal annual payments of \$240 for 20 years will sustain a capital expenditure of approximately \$2,700 when interest rates are 6½ percent and that the same annual payments over 30 years with interest rates at 4½ percent will sustain a capital expenditure of approximately \$3,900.

In short, in the example there given, a reduction from 5 percent to 4 percent in the rate of interest plus an extension of the amortization period from 20 years to 30 years is equivalent to a reduction in capital costs of more than 15 percent.

I want to state this proposition in another way in broad terms. If 30-year mortgages are written instead of 20-year and if the rate of interest on the money invested in a house is lowered from a level of 6 to 5 or 5 percent to 4 percent or 4 to 3, the reduction thereby achieved in carrying costs is equivalent to a cut of more than 50 percent in the total outlays on the site for labor. In this computation, carrying charges are computed on the whole of the investment, as they should be. In other words, I assume that the home owner as well as the lender of funds is entitled to the going rate of interest on his funds. In short, if one should succeed in reducing the wages of building laborers of all kinds by one-half, which would be an impractically drastic cut exceeding the demands of even the most callous of unrealistic theoreticians, the net achievement so far as the carrying charges of the house are concerned would not be equal to that of cutting the interest rate from 5 percent to 4 percent, and lengthening the amortization period from 20 years to 30 years.

Mr. FRANK. How would a cut in material rates compare?

Dr. KREPS. About half. In other words, a cut in material costs of about 25 percent is necessary before you have achieved as much in the reduction of the carrying cost to the home owner or renter, figuring the carrying cost on the whole of the investment, not only on that part that happens to be under mortgage, as would 1 percent reduction in interest rate.

¹ "Wage Rates and Hours of Labor in the Building Trades," in the *Monthly Labor Review*, Bureau of Labor Statistics, August 1937, page 17.

² Housing Monograph Series, No. 1, *Residential Building*, National Resources Committee.

This shows why we have been able in the Federal Government to help housing by reducing the interest rate.

Another fact which demands greater emphasis in a discussion of housing is the amazingly large amount of substandard housing that our cities have been subsidizing unwittingly for years. In Cleveland there is the well-known case of a small slum which is costing the city more than \$1,700,000 in excess annually of its tax return, a sum which capitalized at 6 percent would build about 6,000 houses costing \$5,000. In Chicago, \$3,200,000 was paid out a few years ago to provide services for but one of its larger blighted areas. This amount included the cost of schools, police and fire protection, public health, prisons, street cleaning, paving, lighting, and the like. Three years after the taxes were due, \$586,000 had been collected. Cost of the area to the taxpayers of Chicago was five times the income. Mr. Parker testified that in one slum area of Boston the cost of operation to the taxpayer was 10 times the income. It is an open question whether education and some of the other services mentioned should not be financed on ability to pay. If so, property taxes that are passed on to the small home owner and renter, for certain purposes anyway, are clearly contrary to sound principles of taxation.

In California, in the city of Los Angeles, a recent study showed that a considerable portion of the allowances for rent given to relief clients was utilized for illegal housing. In fact, when the rent allowance was raised, the spectacle was presented of rents being raised by identical amounts almost at the same time. After careful studies made by various civic groups, including the city planning commission, had established the fact that Los Angeles could lower the cost of relief considerably by building new houses of the type which relief clients required, it proceeded to do so. Certainly it seems elementary that if cities are subsidizing housing, they ought to subsidize not slums that require reclamation or demolition, but housing meeting the elementary biological requirements of their citizens.

Finally, a brief commentary on the subject of plans. Obviously, there is no single panacea which will work. The problem's complexities and the solutions required are various. In fact, they are as various as the economic problems which are mirrored in housing.

The first suggestion seems fairly obvious inasmuch as it follows inevitably from the proposition that housing problems are local problems. Solutions therefore lie in no inconsiderable part within the power of local governments. It is a curious fact that governments have been singularly loath to utilize the powers they already have, to utilize the leverage of their present activities. Governments have been slow to put the housing needs of their citizens ahead of local pressure groups, real-estate interests, and the like. An enforcement of the rules of sanitation, of the police power in demolishing unsuitable housing, and in requiring modernization of areas that can be reclaimed, a readjustment of the basis of workers' wages, particularly those on governmental contracts with less attention given to the standard rate and more given to the annual wage, establishment of a rational basis for land utilization and valuation, a more just distribution of the tax burden, decrowding acts—all these lie clearly within the power of local government.

Assistant Administrator Miles Colean of the Federal Housing Administration has pointed out that—In the melancholy regularity

of speculative subdividing, local governments permit their citizens to suffer greater regimentation than any proponent of large scale planning would even think of imposing.¹

To remedy this situation local governments might hasten the reversion of tax delinquent lands, make the pooling and replotting of individual holding compulsory in aggravated cases of unwise subdividing, and establish a metropolitan land reserve as a check on speculation and a guarantee of the future of adequate parks, playgrounds, and new housing areas.

Moreover, it seems clear that one of the most important steps to the development of lower-cost housing will be that of coalescing and integrating the bundle of industries, crafts, and enterprises euphemistically called a home-building industry. One device of importance, at least in large urban areas, is that of encouraging the formation of large building companies. Such companies might build for sale and for rent, taking full advantage of all that our industrial technics have developed in the way of efficiency through mass production. They might carry on their operations independently of the vagaries of single local markets. In such an integrated industry with its possibilities of greatly increased productive capacity all the enterprises, all the workers, and all the capital associated in the present chaos and a great deal more might be readily absorbed and provided with continuous employment.

Mr. FRANK. That would make possible the adjustment of wage rates, too, which are frequently artificial?

Dr. KREPS. Yes; which would be beneficial to labor, to industry, and to the economy.

Such has been the development in other countries, notably in Great Britain. There it is realized that people of low incomes require not unsuitable hand-me-downs but special housing adapted to their needs. Large companies have been formed which integrate the operations of large housing projects from the initial survey of the site to the renting of the finished homes. Dr. Ernest Fisher, director of the research staff of F. H. A., reports that one large firm has developed 26 housing estates in the last 10 years and marketed a total of 30,000 houses. The actual building operations are executed on a large scale with houses built inside of 10 weeks in groups of 50 or 100. The houses so built sell for about \$2,250 with a land cost of about \$270.

It is interesting yet disquieting to note that most of the plans now current imply increased governmental aid, whether it be yield insurance, or governmental absorption of risk, or governmental provision of utilities and other developmental expenses or highly attractive governmental loans for remodeling. Needless to say, the solutions which finally solve are those whereby houses are built by competitive private enterprise at a profit, not only in sufficient numbers but of a type and quality adapted to the needs and pocketbooks of all strata of our population.

To recapitulate: Housing problems are phases of the great unsolved problems of our modern economy. Housing problems are legion in number. Housing problems are local problems. Hindrances to better housing vary with each locality and remedies will, at least in their application, likewise be predominantly local. As a basic program city by city something like the following has been suggested

¹ "Facing the Facts on Housing," *Harper's Monthly Magazine*, March 1937, p. 427.

by a number of groups including the United States Chamber of Commerce:

1. Estimate 25-year population growth of the city and its environs.
2. Estimate land use needs of industry, commerce, and residences for the next 25 years.
3. Revise the zoning ordinances.
4. Eliminate inappropriate uses of land, especially residential.
5. Determine desirable distribution of housing with view to access to work.
6. Estimate housing needs for income groups and appraise present adequacy.
7. Control new land subdivision.
8. Revise building codes.
9. Revise housing codes.
10. Revise tax structures so as to get right use of land.
11. Enact minimum housing standards and decrowding ordinances.
12. Condemn obsolete structures unsafe and unfit for human occupancy.
13. Repair, modernize and reclaim buildings not yet obsolete.
14. Divide residential areas into neighborhood units.
15. Build neighborhood units as planned communities maintained and operated as if by a single ownership, either through limited dividend companies or other soundly organized corporations.

Mr. FRANK. Those suggestions are all in addition to devices that have meant the utilization of money at low rates of interest and the bringing down of material prices in some manner?

Dr. KREPS. Yes; they represent the things that can be done locally to supplement the two really important things which the Federal Government should do: Continue lowering the rate of interest and initiate vigorous anti-trust action.

Basically, the problem of adequate housing is that of securing industrial and farm prosperity, of lifting consumer incomes to the level of the prices of building materials and housing costs. Caution should be exercised lest we blindly subsidize what now exists, and ignore such facts as the migration of industries and of populations, the growth of urbanism and other factors that are likely to change our housing needs in specific localities 25 years hence. Houses now being built are not only supposed to last but are financed for a period as long as 60 years.

Finally, while prosperity stimulates new housing, new housing will likewise stimulate prosperity. If possible, equilibrium between incomes, costs, and carrying charges of housing should be secured at a high level, not a low level. Equilibrium is of course possible at any one of a number of levels. What is required for a high standard of housing is equilibrium at a high level of activity. The central problem now is that of breaking the pathological balance that prevails at a low level with idle capital piled up in the banks, idle labor on the relief rolls, and materials' industries operating at less than half of capacity. Contrary to what may be the prospect in other lines of investment, that of investment in durable consumers goods and particularly in housing is excellent.

A study of the cyclical fluctuations of the housing industry shows that periods of low-interest rates are followed by greater activity in home building. If the interest rate were lowered still further, borrow-

ing of money would be more attractive and less burdensome to home owners and to those who provide housing for renters. More houses would be built. The largest life-insurance companies and some of the savings and loan institutions in the country are already going into the equity financing of rental housing and discovering that thereby they de facto have a more certain income than in the old days of mortgage boom and bust. This may well be a highly successful first step, but many other advances will be required. The housing tangle will need for its unraveling the unstinted effort and collective intelligence of all the varied national and local interests involved, both public and private. But it will absolutely demand the coordinated action of local governments and of private enterprise.

The CHAIRMAN. Thank you very much, Dr. Kreps.

Have you any other witnesses?

Mr. O'CONNELL. I have none, Mr. Chairman.

The CHAIRMAN. Then this, I take it, brings to a close the presentation of construction.

Mr. O'CONNELL. It does.

The CHAIRMAN. Well, I think that the record should not terminate without expression on behalf of the committee of appreciation for the work done by the staff, particularly that done by Mr. Peter Stone in gathering together the material and Mr. O'Connell for the splendid presentation of it. We are all very appreciative of what you have both done.

The committee will stand in adjournment until the call of the Chair.

(Whereupon, at 5:37 p. m. the committee adjourned, subject to the call of the chairman.)

APPENDIX

EXHIBIT No. 828

[Chart based on following statistical data appears in text on p. 4938]

Construction employment ¹

[In thousands of persons]

Month	1925	1926	1927	1928	1929	1930	1931
January.....	1,149	1,276	1,348	1,394	1,415	1,293	959
February.....	1,158	1,211	1,283	1,338	1,300	1,210	937
March.....	1,321	1,379	1,458	1,523	1,368	1,272	1,015
April.....	1,588	1,645	1,739	1,824	1,615	1,457	1,218
May.....	1,788	1,847	1,960	2,054	1,823	1,625	1,369
June.....	1,914	1,978	2,102	2,206	1,924	1,745	1,492
July.....	2,008	2,068	2,210	2,315	2,131	1,839	1,541
August.....	2,070	2,139	2,262	2,394	2,190	1,874	1,558
September.....	2,015	2,081	2,215	2,318	2,134	1,816	1,495
October.....	1,915	1,985	2,113	2,207	2,110	1,737	1,401
November.....	1,745	1,761	1,877	1,968	1,930	1,516	1,216
December.....	1,455	1,483	1,561	1,627	1,582	1,215	1,007
Average.....	1,677	1,738	1,846	1,931	1,799	1,550	1,267

Month	1932	1933	1934	1935	1936	1937	1938
January.....	850	703	710	720	772	1,002	854
February.....	791	656	667	683	740	956	831
March.....	779	701	690	730	901	983	975
April.....	885	757	811	895	1,108	1,072	989
May.....	961	851	974	1,022	1,354	1,231	1,102
June.....	1,026	933	1,072	1,092	1,503	1,281	1,141
July.....	1,097	912	1,100	1,130	1,549	1,330	1,192
August.....	1,134	934	1,113	1,162	1,598	1,358	1,220
September.....	1,156	950	1,072	1,111	1,581	1,335	1,236
October.....	1,143	996	1,038	1,081	1,541	1,319	1,280
November.....	1,052	985	980	991	1,439	1,200	1,244
December.....	839	850	829	880	1,257	1,006	1,135
Average.....	976	852	922	958	1,279	1,174	1,092

¹ Includes all contract construction, state road maintenance and Federal force account.

SOURCE: Bureau of Labor Statistics.

SF-6-26-39.

EXHIBIT No. 829

[Chart based on following statistical data appears in text on p. 4938]

Chart on Employment in the Durable and Nondurable Goods Groups is based on the following Statistical Data

[1923-25 Average=100!]

Year and Month	Durable Goods Group	Nondurable Goods Group	Year and Month	Durable Goods Group	Nondurable Goods Group	Year and Month	Durable Goods Group	Nondurable Goods Group
1923			1924			1925		
Jan.....	97.7	102.6	Jan.....	100.6	99.6	Jan.....	95.3	97.8
Feb.....	101.0	103.9	Feb.....	102.6	100.9	Feb.....	97.3	99.3
Mar.....	103.6	105.6	Mar.....	103.8	100.2	Mar.....	98.7	99.7
Apr.....	105.6	104.6	Apr.....	103.4	97.1	Apr.....	99.9	98.4
May.....	106.6	104.0	May.....	99.3	94.5	May.....	100.1	97.1
Jun.....	107.4	104.1	Jun.....	94.8	92.8	Jun.....	99.2	97.7
Jul.....	106.1	103.2	Jul.....	90.7	90.6	Jul.....	97.9	98.7
Aug.....	105.8	103.8	Aug.....	90.6	83.2	Aug.....	98.7	101.3
Sep.....	105.4	105.2	Sep.....	91.4	96.0	Sep.....	100.7	103.7
Oct.....	104.6	103.3	Oct.....	92.8	97.0	Oct.....	102.0	103.2
Nov.....	103.7	101.8	Nov.....	92.5	96.4	Nov.....	102.3	102.2
Dec.....	101.6	100.7	Dec.....	94.3	97.7	Dec.....	102.2	101.4

Chart on Employment in the Durable and Nondurable Goods Groups is based on the following Statistical Data—Continued

[1923-25 Average=100]

Year and Month	Durable Goods Group	Nondurable Goods Group	Year and Month	Durable Goods Group	Nondurable Goods Group	Year and Month	Durable Goods Group	Nondurable Goods Group
1926			1930			1935		
Jan.....	101.3	100.7	Aug.....	83.7	95.3	Jan.....	74.7	98.0
Feb.....	102.9	101.1	Sep.....	82.3	98.6	Feb.....	78.6	100.0
Mar.....	103.9	101.2	Oct.....	80.9	96.2	Mar.....	80.6	101.1
Apr.....	104.3	99.4	Nov.....	78.1	92.3	Apr.....	81.7	100.5
May.....	103.7	98.0	Dec.....	75.7	89.9	May.....	81.2	98.3
Jun.....	103.2	98.5	1931			Jun.....	78.9	97.2
Jul.....	101.8	97.7	Jan.....	72.3	87.5	Jul.....	79.0	98.2
Aug.....	103.0	100.7	Feb.....	72.4	88.7	Aug.....	80.6	102.2
Sep.....	103.5	104.4	Mar.....	72.5	89.5	Sep.....	81.5	105.5
Oct.....	103.0	104.2	Apr.....	72.6	89.4	Oct.....	85.5	104.5
Nov.....	100.8	102.4	May.....	71.9	88.9	Nov.....	86.7	102.0
Dec.....	98.6	101.9	Jun.....	69.8	87.4	Dec.....	86.3	101.3
1927			Jul.....	67.1	87.8	1936		
Jan.....	96.0	101.1	Aug.....	65.8	89.5	Jan.....	84.6	99.2
Feb.....	97.9	102.3	Sep.....	65.0	90.9	Feb.....	84.4	99.6
Mar.....	99.1	102.6	Oct.....	62.2	88.1	Mar.....	86.0	100.5
Apr.....	99.3	101.2	Nov.....	60.6	84.3	Apr.....	88.5	100.6
May.....	98.2	100.0	Dec.....	60.2	83.2	May.....	90.6	100.0
Jun.....	98.2	101.1	1932			Jun.....	91.4	100.1
Jul.....	95.8	101.2	Jan.....	58.1	81.4	Jul.....	91.7	102.2
Aug.....	96.4	103.3	Feb.....	58.8	83.0	Aug.....	91.9	107.5
Sep.....	95.9	106.2	Mar.....	57.5	82.1	Sept.....	93.0	110.4
Oct.....	95.2	104.9	Apr.....	55.5	79.5	Oct.....	96.7	109.3
Nov.....	92.9	102.8	May.....	54.0	75.9	Nov.....	98.7	107.6
Dec.....	91.5	101.3	Jun.....	52.5	73.4	Dec.....	100.5	108.0
1928			Jul.....	50.1	71.5	1937		
Jan.....	90.3	100.1	Aug.....	48.9	75.9	Jan.....	97.9	107.3
Feb.....	92.8	101.3	Sep.....	49.2	82.2	Feb.....	101.2	109.3
Mar.....	94.9	101.3	Oct.....	49.6	83.9	Mar.....	104.8	110.5
Apr.....	96.1	99.4	Nov.....	50.0	81.8	Apr.....	107.4	110.1
May.....	97.7	98.0	Dec.....	49.6	79.8	May.....	109.0	108.9
Jun.....	98.2	98.7	1933			Jun.....	107.5	107.5
Jul.....	97.4	99.4	Jan.....	47.7	78.1	Jul.....	107.8	108.2
Aug.....	99.9	102.2	Feb.....	48.6	80.1	Aug.....	107.0	111.1
Sep.....	101.3	105.1	Mar.....	46.8	77.0	Sep.....	106.3	111.5
Oct.....	101.6	105.4	Apr.....	47.9	79.1	Oct.....	106.6	107.8
Nov.....	101.0	104.1	May.....	50.9	82.0	Nov.....	100.8	101.4
Dec.....	100.6	103.6	Jun.....	55.3	87.1	Dec.....	91.7	97.2
1929			Jul.....	59.8	91.8	1938		
Jan.....	101.0	102.3	Aug.....	65.0	97.0	Jan.....	81.7	93.7
Feb.....	103.9	104.3	Sep.....	68.3	100.8	Feb.....	80.1	95.9
Mar.....	105.9	105.0	Oct.....	68.0	100.3	Mar.....	79.3	95.8
Apr.....	108.0	105.4	Nov.....	66.1	95.6	Apr.....	77.0	94.0
May.....	109.3	103.9	Dec.....	65.8	92.5	May.....	75.0	91.5
Jun.....	109.3	104.4	1934			Jun.....	72.4	90.3
Jul.....	109.2	105.6	Jan.....	65.2	91.7	Jul.....	70.3	92.9
Aug.....	110.3	108.2	Feb.....	69.6	97.0	Aug.....	71.7	99.0
Sep.....	109.8	110.8	Mar.....	73.8	99.9	Sep.....	75.3	101.7
Oct.....	107.7	110.2	Apr.....	77.0	100.0	Oct.....	79.0	99.4
Nov.....	102.5	106.6	May.....	78.8	98.8	Nov.....	82.1	98.4
Dec.....	97.6	103.6	Jun.....	78.1	97.1	Dec.....	83.1	98.8
1930			Jul.....	75.7	96.4	1939		
Jan.....	94.8	101.4	Aug.....	73.6	100.6	Jan.....	81.6	97.1
Feb.....	95.3	101.2	Sep.....	71.5	95.0	Feb.....	82.6	98.4
Mar.....	95.1	100.5	Oct.....	70.2	100.9	Mar.....	83.5	98.9
Apr.....	94.9	99.6	Nov.....	69.8	98.0			
May.....	93.8	97.4	Dec.....	72.3	98.3			
Jun.....	90.8	96.3						
Jul.....	86.3	94.3						

EXHIBIT No. 830

[Chart based on following statistical data appears in text on p. 4939]

Chart on Employment and Pay Rolls in the Millwork Industry Is Based on the Following Statistical Data

[1923-25=100]

Month and year	Employment	Pay Roll	Month and Year	Employment	Pay Roll
1923			1928		
January.....	92.2	84.6	January.....	83.7	77.0
February.....	93.2	86.4	February.....	84.1	81.9
March.....	95.8	90.5	March.....	84.5	83.6
April.....	97.4	96.5	April.....	86.6	87.0
May.....	98.0	98.6	May.....	88.2	89.4
June.....	99.7	101.0	June.....	88.9	91.3
July.....	99.9	98.9	July.....	89.1	88.3
August.....	99.2	97.2	August.....	90.1	89.8
September.....	96.7	96.6	September.....	88.4	87.5
October.....	96.0	98.7	October.....	85.9	87.8
November.....	95.9	99.0	November.....	86.7	85.8
December.....	96.5	99.6	December.....	83.9	83.8
1924			1929		
January.....	95.5	93.2	January.....	84.6	79.6
February.....	98.8	99.2	February.....	85.0	81.8
March.....	100.4	102.0	March.....	87.4	87.1
April.....	102.1	104.7	April.....	88.2	88.3
May.....	101.1	103.3	May.....	88.9	89.0
June.....	99.3	102.6	June.....	88.9	88.6
July.....	97.1	96.2	July.....	88.7	86.4
August.....	97.5	98.7	August.....	88.4	88.9
September.....	98.2	96.4	September.....	85.6	86.5
October.....	98.3	99.7	October.....	81.4	83.5
November.....	97.4	96.0	November.....	76.0	72.9
December.....	99.3	99.0	December.....	71.7	69.3
1925			1930		
January.....	98.9	95.9	January.....	70.1	64.4
February.....	101.1	101.6	February.....	71.2	67.6
March.....	101.8	101.7	March.....	69.1	67.1
April.....	103.8	103.5	April.....	68.9	67.6
May.....	102.8	104.8	May.....	69.1	69.4
June.....	102.8	105.7	June.....	67.1	67.2
July.....	105.1	105.7	July.....	64.0	59.6
August.....	106.2	108.4	August.....	62.0	59.2
September.....	107.3	104.5	September.....	58.3	55.1
October.....	108.2	111.2	October.....	58.9	54.5
November.....	107.8	108.9	November.....	57.6	51.2
December.....	108.5	109.8	December.....	56.9	50.0
1926			1931		
January.....	105.6	101.9	January.....	53.2	44.3
February.....	105.8	105.6	February.....	54.3	46.5
March.....	106.8	107.6	March.....	54.4	46.9
April.....	104.4	104.1	April.....	54.5	46.9
May.....	103.2	104.6	May.....	55.2	48.2
June.....	102.9	105.5	June.....	53.4	46.3
July.....	102.7	100.8	July.....	52.0	43.7
August.....	102.7	105.0	August.....	51.4	42.4
September.....	101.4	101.7	September.....	48.0	37.5
October.....	101.0	103.7	October.....	46.4	35.3
November.....	99.5	101.1	November.....	46.1	33.3
December.....	96.1	97.7	December.....	44.8	32.8
1927			1932		
January.....	93.5	89.4	January.....	41.6	28.8
February.....	92.0	89.5	February.....	39.6	26.2
March.....	91.3	90.2	March.....	38.7	23.9
April.....	92.1	92.4	April.....	36.8	22.9
May.....	92.0	94.2	May.....	36.3	22.8
June.....	92.9	94.7	June.....	34.7	21.1
July.....	92.2	91.2	July.....	33.0	19.6
August.....	92.2	94.7	August.....	32.7	18.6
September.....	90.4	90.1	September.....	32.5	18.7
October.....	88.5	89.8	October.....	32.1	18.7
November.....	86.4	85.5	November.....	31.7	18.6
December.....	85.2	84.6	December.....	30.8	16.8

Chart on Employment and Pay Rolls in the Millwork Industry Is Based on the Following Statistical Data—Continued

[1923-25=100]

Month and year	Employment	Pay Roll	Month and Year	Employment	Pay Roll
1933			1936		
January.....	28.3	14.8	March.....	49.5	36.2
February.....	28.8	14.3	April.....	50.9	37.2
March.....	26.3	12.4	May.....	52.2	39.4
April.....	28.0	14.5	June.....	54.2	41.6
May.....	30.3	16.6	July.....	54.2	40.0
June.....	33.3	19.2	August.....	57.1	44.2
July.....	37.2	21.8	September.....	57.6	43.9
August.....	38.4	22.9	October.....	58.8	47.3
September.....	38.6	23.2	November.....	58.8	47.0
October.....	37.5	22.6	December.....	59.5	48.1
November.....	36.1	21.2			
December.....	35.4	21.1	1937		
1934			January.....	59.3	44.7
January.....	32.8	19.2	February.....	60.6	47.9
February.....	34.4	19.9	March.....	62.3	50.0
March.....	35.4	20.8	April.....	63.5	52.8
April.....	36.8	22.0	May.....	63.1	52.1
May.....	38.3	23.4	June.....	63.3	54.6
June.....	38.3	23.0	July.....	63.1	52.0
July.....	36.2	21.1	August.....	62.9	53.2
August.....	36.8	22.1	September.....	61.2	50.5
September.....	37.4	22.2	October.....	59.7	49.1
October.....	37.6	22.9	November.....	56.4	43.9
November.....	38.9	23.6	December.....	52.5	40.6
December.....	38.3	23.2	1938		
1935			January.....	48.4	34.7
January.....	37.5	21.1	February.....	50.5	38.0
February.....	39.0	23.0	March.....	50.7	39.5
March.....	40.4	24.2	April.....	49.9	38.6
April.....	41.8	25.6	May.....	48.7	39.5
May.....	43.0	27.0	June.....	49.7	40.3
June.....	43.1	28.1	July.....	50.9	41.6
July.....	45.7	30.6	August.....	52.8	45.6
August.....	49.3	34.6	September.....	54.0	45.5
September.....	52.0	37.4	October.....	54.0	46.0
October.....	51.5	38.4	November.....	54.9	44.5
November.....	50.7	36.3	December.....	54.0	44.6
December.....	49.2	35.7	1939		
1936			January.....	53.0	42.7
January.....	47.9	33.3	February.....	53.3	43.5
February.....	48.2	33.2	March.....	53.4	43.7

EXHIBIT No. 831

[Chart based on following statistical data appears in text on p. 4939]

Chart on Employment and Pay Rolls in the Sawmill Industry is Based on the Following Statistical Data

[1923-25=100]

Month and Year	Employment	Pay Roll	Month and Year	Employment	Pay Roll
1923			1928		
January.....	96.4	85.8	January.....	78.8	77.3
February.....	98.9	88.5	February.....	78.8	79.8
March.....	99.7	93.2	March.....	81.2	84.1
April.....	102.0	98.5	April.....	83.4	86.7
May.....	104.3	105.1	May.....	84.4	89.6
June.....	107.3	109.8	June.....	86.3	90.1
July.....	108.1	109.0	July.....	85.1	87.9
August.....	107.3	108.3	August.....	87.2	89.8
September.....	107.4	108.6	September.....	87.8	91.3
October.....	106.0	108.8	October.....	87.6	92.2
November.....	104.6	108.8	November.....	87.2	90.6
December.....	101.6	105.6	December.....	84.9	87.1
1924			1929		
January.....	98.0	95.3	January.....	82.3	79.9
February.....	100.0	101.6	February.....	82.5	82.5
March.....	99.6	102.5	March.....	83.9	84.7
April.....	101.1	104.0	April.....	87.3	90.1
May.....	102.0	104.6	May.....	89.5	94.6
June.....	99.6	103.2	June.....	91.0	94.1
July.....	98.2	95.8	July.....	91.2	95.6
August.....	98.0	95.0	August.....	92.9	95.5
September.....	98.2	98.0	September.....	91.4	97.2
October.....	98.5	98.2	October.....	89.0	95.6
November.....	97.1	96.1	November.....	87.2	91.2
December.....	95.4	95.5	December.....	83.7	87.8
1925			1930		
January.....	94.7	88.6	January.....	77.8	75.5
February.....	96.2	95.3	February.....	75.0	74.3
March.....	95.2	97.3	March.....	75.7	79.3
April.....	97.9	98.1	April.....	75.2	79.7
May.....	98.8	100.5	May.....	74.6	79.1
June.....	100.5	104.0	June.....	72.1	76.5
July.....	99.3	99.7	July.....	67.8	67.2
August.....	98.7	97.6	August.....	64.5	61.9
September.....	99.8	101.5	September.....	61.1	60.3
October.....	98.8	101.4	October.....	59.7	58.3
November.....	96.8	98.6	November.....	56.0	52.3
December.....	94.8	97.2	December.....	51.8	46.9
1926			1931		
January.....	92.3	87.8	January.....	46.6	38.6
February.....	92.0	92.6	February.....	45.4	38.1
March.....	92.4	93.0	March.....	43.9	38.3
April.....	96.6	96.0	April.....	44.3	36.8
May.....	98.3	99.3	May.....	44.3	38.3
June.....	99.3	101.9	June.....	43.8	38.0
July.....	98.7	97.4	July.....	41.4	34.7
August.....	99.1	100.2	August.....	40.3	33.0
September.....	97.0	100.1	September.....	38.9	32.1
October.....	95.4	100.3	October.....	37.6	28.9
November.....	93.7	97.5	November.....	35.6	25.4
December.....	91.5	93.2	December.....	31.4	20.7
1927			1932		
January.....	86.8	84.1	January.....	30.2	17.8
February.....	85.5	85.9	February.....	29.8	17.7
March.....	85.3	87.5	March.....	29.7	17.8
April.....	85.7	86.5	April.....	30.8	18.2
May.....	88.0	91.9	May.....	31.1	18.6
June.....	88.3	92.6	June.....	31.7	18.5
July.....	88.0	89.0	July.....	31.4	17.8
August.....	88.5	91.1	August.....	31.7	17.9
September.....	88.7	92.6	September.....	32.7	18.8
October.....	87.2	92.3	October.....	34.0	20.0
November.....	85.3	90.0	November.....	33.8	19.6
December.....	81.4	84.9	December.....	33.0	18.3

Chart on Employment and Pay Rolls in the Sawmill Industry is Based on the Following Statistical Data—Continued

[1923-25 = 100]

Month and Year	Employment	Pay Roll	Month and Year	Employment	Pay Roll
1933			1936		
January.....	31.8	17.4	March.....	56.4	46.3
February.....	31.3	17.2	April.....	58.5	49.0
March.....	31.2	17.1	May.....	60.4	51.9
April.....	32.5	18.1	June.....	60.7	52.5
May.....	34.4	19.8	July.....	61.2	49.8
June.....	38.7	23.1	August.....	61.6	52.8
July.....	42.2	25.8	September.....	62.5	53.8
August.....	45.1	29.0	October.....	62.4	54.7
September.....	47.3	32.2	November.....	59.3	49.2
October.....	48.0	32.4	December.....	58.1	47.6
November.....	46.8	31.0	1937		
December.....	45.6	29.4	January.....	56.0	43.6
1934			February.....	57.3	47.1
January.....	42.2	25.9	March.....	62.2	56.2
February.....	43.7	28.6	April.....	63.8	61.3
March.....	45.9	31.2	May.....	65.4	62.3
April.....	48.5	33.8	June.....	66.9	67.8
May.....	51.2	36.5	July.....	67.7	62.7
June.....	50.2	34.8	August.....	67.5	66.9
July.....	49.3	32.1	September.....	66.0	62.6
August.....	50.1	34.5	October.....	63.5	58.9
September.....	49.7	34.6	November.....	57.4	48.2
October.....	50.6	35.5	December.....	51.6	40.4
November.....	49.1	33.9	1938		
December.....	47.9	32.0	January.....	47.9	37.5
1935			February.....	48.3	39.3
January.....	47.0	31.0	March.....	51.0	44.5
February.....	50.0	34.4	April.....	51.0	44.4
March.....	51.3	35.8	May.....	51.1	45.4
April.....	53.3	38.4	June.....	50.1	45.4
May.....	52.6	33.3	July.....	49.8	41.6
June.....	48.3	34.2	August.....	52.4	50.2
July.....	53.1	38.2	September.....	53.5	50.6
August.....	57.5	45.9	October.....	53.1	50.4
September.....	58.1	47.9	November.....	52.3	46.4
October.....	58.4	48.1	December.....	50.9	44.9
November.....	56.4	43.8	1939		
December.....	54.7	42.9	January.....	49.1	42.4
1936			February.....	49.1	41.1
January.....	53.7	41.7	March.....	49.1	42.4
February.....	53.9	40.8			

EXHIBIT No. 832

[Chart based on following statistical data appears in text on p. 4940]

Chart on Employment and Pay Rolls in the Cement Industry is Based on the Following Statistical Data.

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1923			1928		
January.....	84.9	81.9	January.....	86.0	89.5
February.....	86.8	83.7	February.....	84.3	85.2
March.....	90.4	87.2	March.....	86.9	87.9
April.....	92.4	89.1	April.....	90.2	95.9
May.....	95.2	92.9	May.....	94.1	100.9
June.....	96.	95.3	June.....	96.9	102.1
July.....	99.5	97.7	July.....	97.8.	104.7
August.....	98.7	100.8	August.....	99.6	106.0
September.....	99.2	102.4	September.....	97.1	101.7
October.....	98.5	102.8	October.....	95.8	102.0
November.....	99.5	101.7	November.....	93.2	95.3
December.....	98.0	99.3	December.....	89.6	91.1
1924			1929		
January.....	96.6	94.5	January.....	85.6	81.6
February.....	96.1	98.6	February.....	84.9	84.1
March.....	98.2	101.1	March.....	87.3	88.1
April.....	100.5	104.3	April.....	89.5	92.9
May.....	103.0	104.1	May.....	92.4	96.9
June.....	102.5	109.0	June.....	94.7	99.9
July.....	103.4	103.5	July.....	95.5	97.5
August.....	104.1	106.1	August.....	95.7	100.7
September.....	103.2	105.9	September.....	94.4	100.6
October.....	101.8	104.8	October.....	91.4	95.8
November.....	102.6	102.4	November.....	88.7	90.0
December.....	99.4	99.9	December.....	83.6	86.3
1925			1930		
January.....	94.5	85.5	January.....	76.0	72.0
February.....	92.7	90.9	February.....	75.9	74.8
March.....	96.6	95.5	March.....	82.0	82.0
April.....	102.5	100.0	April.....	88.5	91.1
May.....	105.3	104.2	May.....	93.2	96.8
June.....	107.8	107.2	June.....	95.4	101.9
July.....	108.9	106.9	July.....	91.7	90.1
August.....	109.8	110.7	August.....	91.8	90.6
September.....	110.3	109.8	September.....	88.3	87.3
October.....	109.0	108.7	October.....	84.1	83.7
November.....	106.7	108.7	November.....	77.5	69.7
December.....	104.4	102.0	December.....	70.7	62.0
1926			1931		
January.....	95.9	86.2	January.....	63.1	50.5
February.....	94.9	87.9	February.....	63.7	57.1
March.....	94.4	91.3	March.....	67.1	60.2
April.....	98.2	95.1	April.....	71.4	65.3
May.....	103.3	102.7	May.....	73.8	69.2
June.....	106.5	108.7	June.....	71.5	68.4
July.....	107.8	105.1	July.....	71.8	63.6
August.....	108.3	113.1	August.....	68.1	59.5
September.....	107.6	108.8	September.....	64.5	54.1
October.....	106.2	109.0	October.....	63.0	50.8
November.....	103.6	105.1	November.....	58.0	45.5
December.....	98.4	98.0	December.....	53.8	38.6
1927			1932		
January.....	91.6	86.8	January.....	48.5	32.7
February.....	89.5	88.2	February.....	47.7	33.0
March.....	94.9	95.3	March.....	47.6	32.2
April.....	98.6	102.6	April.....	48.0	31.8
May.....	101.1	109.9	May.....	45.8	32.1
June.....	103.3	108.6	June.....	40.0	30.9
July.....	104.2	108.2	July.....	45.2	28.3
August.....	104.2	108.2	August.....	42.5	27.8
September.....	103.5	106.9	September.....	46.8	29.2
October.....	100.7	105.7	October.....	47.8	30.1
November.....	97.1	100.8	November.....	45.9	28.1
December.....	90.6	93.4	December.....	37.2	21.8

Chart on Employment and Pay Rolls in the Cement Industry is Based on the Following Statistical Data—Continued

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1933			1936		
January.....	34.0	19.7	March.....	50.4	38.8
February.....	33.7	19.7	April.....	59.4	46.8
March.....	34.1	20.3	May.....	66.3	53.8
April.....	40.2	22.5	June.....	66.8	55.6
May.....	42.1	25.6	July.....	68.2	57.3
June.....	48.2	29.8	August.....	69.4	59.6
July.....	51.9	32.3	September.....	70.4	60.3
August.....	54.9	36.5	October.....	70.9	61.3
September.....	49.8	30.3	November.....	69.4	62.4
October.....	43.3	29.2	December.....	67.0	58.1
November.....	43.2	27.5			
December.....	38.7	23.6	1937		
1934			January.....	61.7	49.3
January.....	39.0	23.9	February.....	63.0	52.0
February.....	45.1	28.3	March.....	68.7	61.8
March.....	47.0	30.3	April.....	72.4	67.7
April.....	53.9	38.9	May.....	74.1	70.7
May.....	64.0	45.3	June.....	75.3	74.2
June.....	65.8	50.3	July.....	75.3	71.7
July.....	65.2	49.3	August.....	75.5	76.2
August.....	61.8	44.7	September.....	75.5	72.0
September.....	60.9	42.9	October.....	74.8	71.4
October.....	57.5	41.1	November.....	71.5	66.6
November.....	55.5	37.9	December.....	65.5	57.4
December.....	48.6	31.2	1938		
1935			January.....	54.3	43.9
January.....	43.7	27.8	February.....	53.3	44.2
February.....	44.0	28.4	March.....	57.7	49.7
March.....	48.0	31.6	April.....	54.6	58.0
April.....	56.1	39.1	May.....	66.7	65.7
May.....	63.6	45.2	June.....	68.1	65.1
June.....	66.9	49.3	July.....	70.2	66.0
July.....	64.3	46.6	August.....	69.9	65.4
August.....	60.4	44.0	September.....	68.0	63.4
September.....	58.4	43.3	October.....	70.1	65.4
October.....	59.4	43.0	November.....	67.8	63.7
November.....	56.0	40.7	December.....	62.6	57.2
December.....	51.0	38.0	1939		
1936			January.....	53.4	47.0
January.....	43.1	28.6	February.....	54.9	48.9
February.....	43.1	29.0	March.....	60.3	55.5

Source: U. S. Bureau of Labor Statistics.

EXHIBIT No. 833

[Chart based on following statistical data appears in text on p. 4940]

*Chart on Employment and Pay Rolls in the Brick, Tile, and Terra Cotta Industry
Is Based on the Following Statistical Data*

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1923			1928		
January	84.9	72.9	January	81.7	75.2
February	84.4	71.9	February	81.7	75.6
March	91.3	82.5	March	85.8	80.2
April	102.3	96.3	April	90.5	85.6
May	106.7	107.3	May	96.3	92.4
June	108.5	109.5	June	97.8	93.8
July	110.0	107.9	July	99.0	93.0
August	110.0	110.2	August	99.5	95.2
September	108.3	109.5	September	97.8	92.4
October	105.0	109.0	October	95.1	91.7
November	100.2	103.3	November	93.1	88.5
December	95.8	97.2	December	89.8	86.1
1924			1929		
January	89.6	89.2	January	81.3	73.6
February	87.9	90.1	February	79.0	71.4
March	94.6	98.1	March	82.3	76.6
April	102.7	105.9	April	90.5	85.5
May	106.6	111.8	May	96.5	91.9
June	105.7	111.6	June	98.8	94.2
July	103.0	104.9	July	100.3	91.0
August	103.7	105.6	August	100.6	93.1
September	100.3	100.3	September	99.5	91.2
October	99.0	102.4	October	95.9	89.6
November	96.9	98.8	November	90.7	83.6
December	94.9	97.0	December	82.1	75.1
1925			1930		
January	87.7	84.3	January	68.7	57.0
February	87.6	87.6	February	67.1	57.4
March	95.3	95.3	March	71.3	62.8
April	102.9	103.3	April	77.4	69.9
May	107.7	109.5	May	80.1	72.2
June	107.9	109.5	June	79.8	72.3
July	107.9	107.5	July	77.1	64.7
August	105.9	107.8	August	75.4	64.8
September	104.8	102.4	September	73.7	63.9
October	101.8	103.1	October	70.0	60.8
November	100.2	100.5	November	65.9	53.6
December	98.2	98.8	December	60.0	47.5
1926			1931		
January	92.2	89.3	January	48.2	35.1
February	91.2	89.2	February	48.4	37.1
March	93.3	92.4	March	51.7	40.0
April	100.1	95.9	April	55.5	41.8
May	108.3	108.6	May	57.1	42.8
June	110.6	112.7	June	57.1	41.0
July	111.9	108.9	July	54.7	37.2
August	112.6	113.1	August	52.2	34.8
September	110.2	107.5	September	49.9	32.9
October	105.9	106.2	October	45.6	29.5
November	101.8	101.7	November	43.5	27.2
December	96.2	95.7	December	38.5	22.9
1927			1932		
January	89.4	84.4	January	32.4	16.9
February	87.6	87.5	February	31.0	16.1
March	94.9	94.7	March	31.3	15.5
April	103.4	101.4	April	32.9	16.5
May	107.9	109.3	May	33.8	17.3
June	108.1	108.1	June	32.2	15.5
July	107.7	104.2	July	32.0	15.0
August	105.2	103.1	August	32.8	15.7
September	102.2	98.4	September	32.6	15.9
October	97.4	94.2	October	32.1	15.3
November	94.9	90.8	November	30.8	13.9
December	89.0	84.4	December	27.4	12.4

*Chart on Employment and Pay Rolls in the Brick, Tile, and Terra Cotta Industry
Is Based on the Following Statistical Data—Continued*

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1933			1936		
January.....	22.8	10.4	March.....	46.0	31.7
February.....	23.1	10.4	April.....	52.0	36.4
March.....	23.1	9.9	May.....	56.5	41.6
April.....	25.2	10.9	June.....	59.9	44.3
May.....	28.4	12.7	July.....	60.9	44.1
June.....	32.2	15.6	August.....	61.4	45.4
July.....	37.7	18.6	September.....	60.7	44.5
August.....	40.1	20.6	October.....	60.0	46.7
September.....	39.5	19.7	November.....	60.0	46.4
October.....	36.7	18.2	December.....	59.0	46.2
November.....	34.4	17.0			
December.....	32.6	16.3	1937		
1934			January.....	55.2	41.0
January.....	30.1	15.7	February.....	56.4	43.0
February.....	31.5	17.0	March.....	59.7	48.2
March.....	33.4	17.9	April.....	64.5	55.7
April.....	38.0	21.4	May.....	66.6	55.6
May.....	41.5	23.8	June.....	66.0	55.6
June.....	43.3	25.3	July.....	65.2	52.0
July.....	40.5	22.6	August.....	63.1	52.2
August.....	40.9	22.5	September.....	63.3	51.6
September.....	39.7	21.8	October.....	60.6	49.0
October.....	39.4	22.9	November.....	55.1	40.3
November.....	39.8	22.5	December.....	49.9	34.1
December.....	37.9	21.2	1938		
1935			January.....	42.8	26.9
January.....	34.9	18.8	February.....	42.9	28.2
February.....	36.3	21.2	March.....	43.8	28.8
March.....	39.0	23.1	April.....	47.0	32.3
April.....	39.4	23.3	May.....	48.4	35.7
May.....	41.8	25.1	June.....	48.3	36.0
June.....	45.1	27.2	July.....	48.8	35.4
July.....	46.2	28.4	August.....	49.9	37.2
August.....	47.5	30.0	September.....	51.2	38.6
September.....	48.0	31.7	October.....	52.0	40.6
October.....	49.6	33.6	November.....	52.4	39.0
November.....	48.8	33.0	December.....	51.3	39.4
December.....	48.0	32.9	1939		
1936			January.....	48.9	36.7
January.....	43.9	28.2	February.....	48.1	35.6
February.....	42.5	27.3	March.....	49.7	37.2

Source: U. S. Bureau of Labor Statistics.

EXHIBIT No. 834

[Chart based on following statistical data appears in text on p. 4941]

Chart on Employment and Pay Rolls in the Structural and Ornamental Metal Work Industry Is Based on the Following Statistical Data

[1923-25=100]

Month and Year	Employment	Pay Rolls	Month and Year	Employment	Pay Rolls
1923			1928		
January.....	94.3	94.6	January.....	101.9	101.6
February.....	95.4	95.7	February.....	102.2	105.5
March.....	99.8	100.2	March.....	101.1	104.6
April.....	100.8	101.1	April.....	101.4	105.5
May.....	102.9	103.3	May.....	104.8	111.7
June.....	108.1	109.1	June.....	107.6	113.1
July.....	105.5	107.7	July.....	107.1	110.0
August.....	112.2	108.9	August.....	111.2	115.7
September.....	111.6	106.7	September.....	110.6	113.2
October.....	109.9	110.3	October.....	109.2	118.4
November.....	108.0	106.8	November.....	109.2	116.3
December.....	104.2	103.7	December.....	112.1	116.5
1924			1929		
January.....	101.8	98.9	January.....	107.7	105.9
February.....	101.8	101.2	February.....	107.3	108.9
March.....	99.1	98.5	March.....	107.6	108.6
April.....	98.1	99.2	April.....	108.0	110.8
May.....	98.7	98.6	May.....	109.8	112.5
June.....	98.8	100.8	June.....	111.6	113.3
July.....	98.2	93.7	July.....	113.7	112.4
August.....	98.7	96.6	August.....	116.1	119.3
September.....	98.2	94.6	September.....	117.0	120.5
October.....	93.5	94.3	October.....	115.7	121.2
November.....	91.5	87.7	November.....	111.9	111.7
December.....	94.1	95.6	December.....	108.3	108.8
1925			1930		
January.....	93.8	91.3	January.....	104.6	99.3
February.....	93.9	95.8	February.....	101.7	98.5
March.....	94.4	96.5	March.....	100.6	97.6
April.....	94.4	94.9	April.....	101.6	101.8
May.....	96.8	101.2	May.....	102.3	101.8
June.....	98.9	103.0	June.....	103.0	101.5
July.....	102.2	102.9	July.....	102.6	93.7
August.....	101.2	101.8	August.....	98.7	95.6
September.....	100.2	98.1	September.....	97.6	90.9
October.....	101.3	104.0	October.....	94.0	88.6
November.....	98.8	100.3	November.....	90.8	80.6
December.....	98.3	103.5	December.....	89.5	80.2
1926			1931		
January.....	97.9	95.0	January.....	84.5	71.8
February.....	100.0	103.7	February.....	81.2	68.9
March.....	100.6	104.6	March.....	80.8	68.4
April.....	103.7	106.5	April.....	79.2	65.1
May.....	105.8	109.5	May.....	77.5	65.2
June.....	108.0	112.6	June.....	76.1	63.1
July.....	113.9	112.8	July.....	76.9	65.4
August.....	114.0	116.7	August.....	77.1	62.1
September.....	114.8	113.0	September.....	74.1	58.0
October.....	112.8	117.0	October.....	70.0	52.7
November.....	109.9	112.2	November.....	68.0	49.6
December.....	108.6	115.0	December.....	66.3	47.8
1927			1932		
January.....	104.2	103.7	January.....	62.5	43.1
February.....	104.6	106.5	February.....	59.0	39.0
March.....	104.2	108.8	March.....	57.5	36.4
April.....	105.3	104.5	April.....	54.7	34.3
May.....	106.0	109.0	May.....	51.9	32.0
June.....	107.6	112.5	June.....	49.8	28.1
July.....	107.8	109.3	July.....	47.0	25.9
August.....	109.8	116.3	August.....	46.3	25.8
September.....	108.9	109.4	September.....	44.0	24.3
October.....	106.2	110.6	October.....	42.2	23.9
November.....	104.6	106.3	November.....	41.1	23.8
December.....	104.1	110.5	December.....	40.6	21.8

Chart on Employment and Pay Rolls in the Structural and Ornamental Metal Work Industry Is Based on the Following Statistical Data—Continued

[1923-25=100]

Month and Year	Employment	Pay Rolls	Month and Year	Employment	Pay Rolls
1933			1936		
January.....	38.4	18.1	March.....	59.5	42.9
February.....	37.4	16.8	April.....	63.1	46.9
March.....	37.9	16.6	May.....	67.5	52.1
April.....	38.3	17.9	June.....	71.0	55.9
May.....	37.8	19.3	July.....	73.7	56.7
June.....	39.0	20.4	August.....	77.6	60.6
July.....	42.5	21.6	September.....	78.1	61.1
August.....	46.3	27.2	October.....	77.7	63.4
September.....	50.9	31.2	November.....	75.9	60.6
October.....	51.6	33.3	December.....	72.7	60.8
November.....	50.3	32.7			
December.....	49.7	31.3	1937		
1934			January.....	73.5	58.6
January.....	48.8	29.1	February.....	74.5	62.5
February.....	50.0	30.4	March.....	77.0	66.8
March.....	51.1	31.7	April.....	78.5	72.7
April.....	53.2	34.0	May.....	79.8	72.7
May.....	55.7	37.4	June.....	81.6	76.3
June.....	56.9	38.4	July.....	83.6	76.2
July.....	56.4	36.2	August.....	84.4	78.4
August.....	56.5	37.2	September.....	85.4	77.7
September.....	56.3	35.8	October.....	82.1	75.5
October.....	54.9	36.0	November.....	77.8	69.0
November.....	55.8	36.2	December.....	72.1	63.1
December.....	55.6	34.2	1938		
1935			January.....	66.2	54.2
January.....	54.1	34.3	February.....	63.7	52.0
February.....	52.2	32.5	March.....	62.0	50.6
March.....	53.5	33.4	April.....	61.2	49.4
April.....	53.9	34.2	May.....	59.7	48.8
May.....	54.6	35.1	June.....	58.3	46.7
June.....	54.6	34.9	July.....	59.1	48.8
July.....	55.6	36.2	August.....	59.8	51.2
August.....	56.5	37.7	September.....	60.5	49.7
September.....	57.3	39.3	October.....	61.1	50.5
October.....	57.6	39.5	November.....	60.7	50.1
November.....	57.3	38.3	December.....	61.9	53.2
December.....	55.4	38.6	1939		
1936			January.....	61.7	51.8
January.....	56.1	38.9	February.....	64.0	54.6
February.....	56.4	38.5	March.....	66.2	57.6

EXHIBIT No. 835

[Chart based on following statistical data appears in text on p. 4941]

Chart on Employment and Pay Roll in the Steam and Hot-water Heating Apparatus, and Steam Fittings

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1923			1928		
January.....	99.5	100.3	January.....	89.4	86.3
February.....	101.6	102.4	February.....	92.2	97.2
March.....	105.0	105.9	March.....	93.8	97.3
April.....	104.8	105.5	April.....	94.0	94.4
May.....	104.8	105.5	May.....	94.4	99.0
June.....	104.6	105.3	June.....	94.4	98.5
July.....	103.8	101.5	July.....	90.8	92.7
August.....	104.2	96.4	August.....	97.9	101.3
September.....	103.4	100.6	September.....	94.0	95.3
October.....	102.0	102.7	October.....	94.3	95.9
November.....	98.0	97.2	November.....	90.5	90.7
December.....	94.7	97.0	December.....	83.6	84.1
1924			1929		
January.....	96.6	95.2	January.....	93.0	91.3
February.....	98.4	103.2	February.....	96.8	102.4
March.....	101.5	107.9	March.....	95.1	99.8
April.....	103.4	107.8	April.....	94.1	96.8
May.....	101.1	105.2	May.....	90.8	93.2
June.....	99.3	100.5	June.....	89.4	89.6
July.....	95.8	93.4	July.....	85.4	83.5
August.....	96.8	94.2	August.....	89.9	89.7
September.....	97.3	97.0	September.....	90.8	92.1
October.....	97.6	100.2	October.....	93.2	97.6
November.....	95.4	85.3	November.....	92.8	90.5
December.....	89.7	86.6	December.....	88.1	82.6
1925			1930		
January.....	96.2	97.0	January.....	83.0	75.8
February.....	98.4	104.2	February.....	85.4	80.9
March.....	98.4	103.7	March.....	83.7	78.0
April.....	97.3	95.1	April.....	82.2	76.7
May.....	97.0	98.0	May.....	81.0	72.7
June.....	97.0	94.2	June.....	75.2	66.3
July.....	97.3	94.8	July.....	72.6	62.2
August.....	99.8	99.9	August.....	74.6	63.2
September.....	102.1	96.0	September.....	75.2	62.8
October.....	106.0	109.4	October.....	75.9	65.6
November.....	106.0	105.1	November.....	76.1	62.6
December.....	105.6	106.2	December.....	74.6	61.3
1926			1931		
January.....	103.8	106.0	January.....	73.8	57.8
February.....	106.0	108.9	February.....	72.8	57.5
March.....	104.9	109.4	March.....	73.0	54.2
April.....	104.4	107.1	April.....	70.2	50.9
May.....	102.9	105.6	May.....	68.1	47.5
June.....	103.7	109.1	June.....	66.7	45.2
July.....	100.7	101.8	July.....	65.3	43.4
August.....	103.3	105.9	August.....	63.2	42.1
September.....	103.8	107.3	September.....	62.8	38.6
October.....	102.8	107.9	October.....	65.7	43.5
November.....	99.6	100.1	November.....	63.5	38.9
December.....	95.0	96.9	December.....	59.5	35.6
1927			1932		
January.....	95.7	96.8	January.....	54.8	30.7
February.....	100.1	105.6	February.....	56.0	32.5
March.....	99.5	104.7	March.....	54.5	30.1
April.....	99.8	103.2	April.....	49.1	27.7
May.....	99.2	103.4	May.....	42.5	24.3
June.....	100.2	104.2	June.....	42.6	24.6
July.....	101.0	100.8	July.....	41.2	22.0
August.....	101.7	106.1	August.....	42.1	23.1
September.....	103.7	105.5	September.....	45.1	25.1
October.....	101.6	104.6	October.....	47.5	28.8
November.....	96.6	93.1	November.....	49.1	27.6
December.....	91.9	91.6	December.....	43.7	24.2

*Chart on Employment and Pay Rolls in the Steam and Hot-water Heating Apparatus,
and Steam Fittings—Continued*

[1923-25 = 100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1933			1936		
January.....	40.5	21.8	March.....	69.2	53.3
February.....	45.0	23.8	April.....	71.2	54.8
March.....	39.8	21.7	May.....	73.4	58.2
April.....	44.2	24.1	June.....	74.3	60.3
May.....	47.7	28.5	July.....	74.9	58.3
June.....	51.8	32.2	August.....	78.5	65.2
July.....	55.5	34.8	September.....	82.2	63.7
August.....	60.0	38.2	October.....	83.1	71.6
September.....	62.2	37.9	November.....	83.8	71.8
October.....	57.7	35.0	December.....	83.1	73.4
November.....	58.6	34.7			
December.....	56.7	34.8	1937		
1934			January.....	83.8	75.5
January.....	55.0	35.4	February.....	88.0	82.0
February.....	57.3	37.4	March.....	90.8	86.2
March.....	57.8	38.1	April.....	93.1	92.7
April.....	58.1	39.4	May.....	93.2	90.6
May.....	59.5	41.0	June.....	91.0	83.9
June.....	61.2	42.2	July.....	87.8	77.9
July.....	59.0	40.6	August.....	87.2	78.8
August.....	58.9	38.6	September.....	88.4	79.4
September.....	59.4	39.8	October.....	83.8	73.3
October.....	60.7	41.9	November.....	75.6	58.3
November.....	60.5	41.6	December.....	70.6	54.0
December.....	59.1	39.4	1938		
1935			January.....	64.6	47.8
January.....	57.3	39.4	February.....	63.7	46.6
February.....	59.3	41.2	March.....	64.7	47.0
March.....	60.3	41.7	April.....	63.6	45.9
April.....	60.1	42.1	May.....	65.1	47.5
May.....	61.3	43.1	June.....	64.9	51.0
June.....	61.0	42.3	July.....	67.1	51.5
July.....	58.5	39.2	August.....	69.0	55.5
August.....	62.9	45.0	September.....	69.8	53.3
September.....	65.0	49.2	October.....	71.3	59.0
October.....	68.9	55.1	November.....	69.1	53.3
November.....	70.1	52.1	December.....	67.9	56.4
December.....	67.7	60.8	1939		
1936			January.....	65.8	53.8
January.....	65.4	48.7	February.....	68.2	57.1
February.....	68.3	51.4	March.....	69.1	56.2

EXHIBIT No. 836

[Chart based on following statistical data appears in text on p. 4942]

Chart on Employment and Pay Rolls in the Plumbers' Supplies Industry is Based on the Following Statistical Data

[1923-25=100]

Year and Month	Employment	Pay Rolls	Year and Month	Employment	Pay Rolls
1931			1935		
January.....	70.4	50.7	March.....	56.2	42.2
February.....	70.3	52.7	April.....	56.9	43.0
March.....	69.3	50.7	May.....	60.6	45.0
April.....	65.5	47.5	June.....	64.1	46.7
May.....	64.8	48.6	July.....	71.4	50.2
June.....	64.9	48.4	August.....	74.7	56.0
July.....	65.9	51.0	September.....	76.9	59.2
August.....	64.0	50.6	October.....	78.6	62.3
September.....	62.2	45.1	November.....	76.5	67.3
October.....	63.4	47.9	December.....	75.2	58.4
November.....	61.5	42.4			
December.....	58.5	40.5	1936		
1932			January.....	73.6	53.1
January.....	58.9	34.8	February.....	75.1	58.5
February.....	57.1	34.2	March.....	75.9	61.3
March.....	53.9	31.4	April.....	75.5	58.0
April.....	52.9	30.0	May.....	76.1	62.0
May.....	52.1	29.9	June.....	76.3	62.4
June.....	51.4	29.7	July.....	76.4	55.5
July.....	49.3	24.5	August.....	77.0	61.0
August.....	47.0	27.2	September.....	74.8	58.4
September.....	39.2	21.7	October.....	75.9	64.7
October.....	39.7	22.5	November.....	76.2	61.3
November.....	43.1	25.0	December.....	77.5	68.3
December.....	34.9	16.3	1937		
1933			January.....	80.5	67.4
January.....	32.9	14.9	February.....	81.2	67.6
February.....	41.6	20.0	March.....	84.9	79.1
March.....	45.0	25.5	April.....	84.9	77.1
April.....	40.2	21.2	May.....	86.1	77.9
May.....	51.2	32.8	June.....	83.9	77.0
June.....	59.9	40.8	July.....	83.4	72.4
July.....	63.8	38.1	August.....	84.3	77.2
August.....	63.0	38.2	September.....	85.1	73.0
September.....	68.6	42.0	October.....	84.3	76.5
October.....	63.4	36.5	November.....	80.7	63.7
November.....	52.4	26.7	December.....	71.9	55.5
December.....	49.5	26.4	1938		
1934			January.....	70.6	53.3
January.....	40.1	21.3	February.....	71.3	51.6
February.....	48.2	26.3	March.....	70.6	52.5
March.....	49.0	27.5	April.....	70.9	54.2
April.....	47.3	27.4	May.....	71.8	58.9
May.....	46.7	28.4	June.....	72.5	57.6
June.....	52.6	33.8	July.....	72.5	55.3
July.....	43.2	28.2	August.....	73.1	57.3
August.....	41.8	27.7	September.....	73.2	59.6
September.....	44.4	27.2	October.....	73.1	62.0
October.....	47.2	33.4	November.....	73.0	54.9
November.....	46.1	33.8	December.....	72.6	61.1
December.....	49.2	37.2	1939		
1935			January.....	72.0	60.7
January.....	52.4	38.3	February.....	73.7	64.8
February.....	55.7	41.1	March.....	74.0	63.3

Source: U. S. Bureau of Labor Statistics.

EXHIBIT No. 837

[Chart based on following statistical data appears in text on p. 4944]

Value of Construction, 1919 to 1938

[In millions of dollars]

Year	Total	Residential	Private nonresidential	Public Works	Year	Total	Residential	Private nonresidential	Public Works
1919.....	5,916	1,732	2,762	1,422	1929.....	10,519	3,010	4,581	2,928
1920.....	6,336	1,439	3,129	1,714	1930.....	8,628	1,805	3,800	3,023
1921.....	6,105	2,241	2,186	1,678	1931.....	6,109	1,262	2,232	2,615
1922.....	8,383	3,524	2,783	2,076	1932.....	3,496	444	1,097	1,955
1923.....	9,643	4,422	3,300	1,921	1933.....	3,230	392	936	1,902
1924.....	10,490	4,713	3,513	2,264	1934.....	4,364	458	1,180	2,726
1925.....	11,810	5,202	4,062	2,546	1935.....	5,068	923	1,461	2,684
1926.....	11,593	4,757	4,366	2,470	1936.....	7,065	1,658	2,138	3,269
1927.....	11,787	4,524	4,477	2,786	1937.....	8,257	1,719	3,341	3,197
1928.....	11,572	4,255	4,385	2,932	1938.....	8,054	1,846	2,503	3,705

Source: National Bureau of Economic Research, 1919 to 1935, and BLS, 1936 to 1938.

EXHIBIT No. 838

[Chart based on following statistical data appears in text on p. 4946]

Volume of Construction from Government funds, 1925 to 1938

[In millions of dollars]

Source	1925-31 Average	1932-35 Average	1936-38 Average
Total.....	2,404	1,881	2,110
Federal.....	222	453	580
Federal assistance.....	95	406	629
State and Local.....	2,087	1,022	901

Source: Construction Analysis Section, W. P. A.
NOTE.—WPA, CWA, and FERA are not included.

EXHIBIT No. 839

[Chart based on following statistical data appears in text on p. 4948]

Residential Units Provided for in New Nonfarm Construction, by Type

[In thousands of units]

Year	Total	1-family	2-family	Apartments	Year	Total	1-family	2-family	Apartments
1920.....	247	202	24	21	1930.....	286	185	28	73
1921.....	449	316	70	63	1931.....	212	147	21	44
1922.....	716	437	146	133	1932.....	74	61	6	7
1923.....	871	513	175	183	1933.....	54	39	4	11
1924.....	893	534	173	186	1934.....	55	42	3	10
1925.....	937	572	157	208	1935.....	144	110	6	28
1926.....	849	491	117	241	1936.....	276	203	13	60
1927.....	810	454	99	257	1937.....	286	219	15	52
1928.....	753	436	78	239	1938.....	347	260	17	70
1929.....	509	316	51	142					

Source: National Bureau of Economic Research, 1920 to 1935 and BLS, 1936 to 1938.

Residential United Provided for in New Nonfarm Construction, by Regions

[In thousands of units]

Year	North-east	North Central	South	West	Year	North-east	North Central	South	West
1920.....	55	70	78	44	1930.....	99	53	78	56
1921.....	121	109	132	87	1931.....	81	34	59	38
1922.....	224	186	178	128	1932.....	24	11	24	15
1923.....	278	244	194	155	1933.....	18	7	18	11
1924.....	302	244	207	140	1934.....	22	8	17	8
1925.....	315	252	228	142	1935.....	39	26	58	21
1926.....	300	231	196	122	1936.....	81	54	91	50
1927.....	301	213	185	111	1937.....	82	55	92	57
1928.....	263	196	188	106	1938.....	107	61	109	70
1929.....	156	140	131	81					

Source: National Bureau of Economic Research 1920 to 1935, and BLS, 1936 to 1938.

EXHIBIT No. 840

[Chart based on following statistical data appears in text on p. 4950]

Urban Non-relief Families by Income

Family Income	Percent distribution, 1935-36	Family Income	Percent distribution, 1935-36
Under \$500.....	7.16	2,000 to 3,000.....	18.12
500 to 1,000.....	19.89	3,000 to 5,000.....	8.07
1,000 to 1,500.....	24.02	5,000 and over.....	4.10
1,500 to 2,000.....	18.64		

Source: U. S. Bureau of Labor Statistics.

EXHIBIT No. 841

[Chart based on following statistical data appears in text on p. 4952]

Family Income

	Percent Distribution by Income Size						
	Under \$500	\$500 to \$1000	\$1000 to \$1500	\$1500 to \$2000	\$2000 to \$3000	\$3000 to \$5000	\$5000 And Over
Chicago.....	3.2	11.6	21.5	23.1	25.7	11.5	3.4
Portland.....	3.8	14.2	24.6	23.8	22.5	8.7	2.4
Mobile.....	5.3	21.1	22.4	19.1	19.3	9.7	3.1
Beaver Falls (Pa.).....	2.8	17.3	32.7	21.7	17.1	7.2	1.2

Source: Bureau of Labor Statistics Study of Consumer Purchases. Includes native white non-relief families of two or more.

CONCENTRATION OF ECONOMIC POWER

EXHIBIT-NO. 842

[Chart based on following statistical data appears in text on p. 4954]

Percentage of Family Income Spent for Housing

[U. S. average, all families, 1935-36]

Income group	Income spent for housing (percent)
Under \$1,000.....	22.5
\$1,000-\$1,500.....	17.6
\$1,500-\$2,500.....	16.2
\$2,500-\$5,000.....	14.4
\$5,000 and over.....	10.5

Source: National Resources Committee, Consumer Expenditures and Income.

EXHIBIT No. 843

[Chart based on following statistical data appears in text on p. 4956]

Ratio of Rent to Income

	Percent of Total Income for Renters by Income Size						
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$3,000	\$3,000 to \$5,000	\$5,000 and over
Chicago.....	116.4	34.8	26.3	22.6	20.0	17.1	13.4
Portland.....	64.0	24.3	18.0	15.9	14.1	12.1	9.7
Mobile.....	43.1	20.6	16.5	14.5	13.3	10.9	9.5
Beaver Falls (Pa.).....	63.2	23.0	17.7	15.8	13.4	11.5	7.1

Source: Bureau of Labor Statistics Study of Consumer Purchases. Includes native white non-relief families of two or more.

S.A.
6-26-39.

EXHIBIT No. 844

[Chart based on following statistical data appears in text on p. 4957]

Proportion of Families Renting

	Percent of All Families by Income Size					
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$3,000	\$3,000 and over
Chicago.....	79.1	85.2	84.7	81.1	72.9	64.4
Portland.....	45.9	61.6	58.3	52.9	37.7	32.5
Mobile.....	76.5	77.6	66.7	63.7	48.4	32.8
Beaver Falls (Pa.).....	43.9	66.8	67.9	55.0	47.9	33.9

Source: Bureau of Labor Statistics Study of Consumer Purchases. Includes native white non-relief families of two or more.

S.A.
6-26-39.

EXHIBIT No. 845

[Chart based on following statistical data appears in text on p. 4959]

Percentage Lacking Specified Facilities

	Percent of Renters by Income Size						
	Under \$500	\$500 to \$1,000	\$1,000 to \$1,500	\$1,500 to \$2,000	\$2,000 to \$3,000	\$3,000 to \$5,000	\$5,000 and over
Chicago.....		44	25	12	5	4	0
Portland.....		15	13	8	4	2	0
Mobile.....		84	64	44	23	10	4
Beaver Falls (Pa.).....		69	47	29	16	8	

Source: Bureau of Labor Statistics Study of Consumer Purchases. Includes native white non-relief families of two or more.

SA,
6-26-39.

EXHIBIT No. 846

[Chart based on following statistical data appears in text on p. 4962]

Houses City Families Can Afford and Houses Built in 1938¹

Selling price (dollars)	Percent distribution of city families by price of house they can afford	Percent distribution of houses built for city families in 1938	Selling price (dollars)	Percent distribution of city families by price of house they can afford	Percent distribution of houses built for city families in 1938
2,000 to 4,000.....	48	20	6,000 to 8,000.....	12	32
4,000 to 6,000.....	37	32	8,000 to 10,000.....	03	16

¹ Preliminary data.

Source: U. S. Bureau of Labor Statistics.

EXHIBIT No. 847

[Chart based on following statistical data appears in text on p. 4977]

Summary of Annual Requirements for Non-Farm Dwellings in the United States (Exclusive of Shortages) for 1938 and 1939

	Annual Requirements for Non-Farm Dwellings 1938-1939 ²	Dwelling Units Constructed 1938
Under \$10.....	50,504	-----
\$10 under \$20.....	136,171	-----
20 " 30.....	125,094	12,839 (3.7%)
30 " 50.....	114,133	134,289 (38.7%)
50 and over.....	50,672	199,525 (57.5%)

Source: Annual requirements from "The Housing Market," published by the National Housing Committee, Washington, D. C., December 1937.

Dwelling units constructed from Bureau of Labor Statistics estimates, distributed according to FHA loans in 1938.

"EXHIBIT No. 848", appears in text facing p. 4980

"EXHIBIT No. 849", appears in text facing p. 4981

"EXHIBIT No. 850," appears in text on p. 4983

EXHIBIT No. 851

[Chart based on following statistical data appears in text on p. 4986]

Index of Proportion of National Income Spent for Homes and Automobiles

Year	Passenger Cars \$750 and under	Passenger Cars Over \$750	Private Residential Construc- tion	Year	Passenger Cars \$750 and under	Passenger Cars Over \$750	Private Resi- tial Con- struction
1921.....	70	75	48	1930.....	85	40	44
1922.....	110	90	74	1931.....	75	25	33
1923.....	170	85	86	1932.....	55	15	20
1924.....	130	110	97	1933.....	85	10	11
1925.....	100	100	100	1934.....	115	10	8
1926.....	105	95	95	1935.....	165	15	15
1927.....	75	85	88	1936.....	160	15	26
1928.....	105	85	79	1937.....	160	20	30
1929.....	130	65	65				

Source: Passenger cars: U. S. Department of Commerce. National Income: National Bureau of Economic Research and Department of Commerce. Private Residential Construction: National Resources Committee.

"EXHIBIT No. 852," appears in text on p. 4987

"EXHIBIT No. 853," appears in text on p. 4993

EXHIBIT No. 854

SMITH & DAWSON

1 North LaSalle Street, Chicago, Ill.

JUNE 9, 1939.

Breakdown Costs on a \$4,800.00 House Sale

Architect (Plans & Specifications).....	\$50. 00
Hand excavating and rough grading back fill and landscaping.....	52. 00
Concrete work—footing and porch material and labor.....	141. 00
Masonry:	
1. Material.....	\$294. 60
2. Labor.....	219. 40
	514. 00
Lumber.....	530. 00
Steel—beams and lintels.....	30. 00
Plaster and lathing.....	310. 00
Millwork: Doors, sash, flooring, frames.....	210. 00
Glazing.....	43. 00
Floor sanding.....	10. 00
Linoleum.....	25. 00
Plumbing:	
Labor and material.....	445. 00
Septic tank, cess pool.....	90. 00
Well and pump.....	174. 00

Breakdown Costs on a \$4,800.00 House Sale—Continued

Electrical Work: Wiring and fixtures.....	\$105. 00
Heating: Gas with air conditioner (includes labor and installation)....	265. 00
Gutters and sheet metal work.....	61. 00
Weather stripping.....	10. 00
Carpenter labor.....	370. 00
Workmen's compensation, State unemployment tax, and Social Security expense.....	80. 00
Finished hardware.....	35. 00
Drain tile (for gutter drains).....	25. 00
Advertising expense.....	175. 00
Total cost.....	\$3, 750. 00
Selling cost of house.....	\$4, 100. 00
Selling cost of land.....	700. 00
Total selling cost.....	\$4, 800. 00
Selling price of above house.....	\$4, 100. 00
Cost.....	3, 750. 00
Profit on house.....	\$350. 00
Selling price of lot.....	\$700. 00
Cost of lot.....	350. 00
Profit on lot.....	350. 00
Combined Profit.....	\$700. 00

SMITH & DAWSON

1 North LaSalle Street, Chicago, Ill.

Financial Statement of Basic House

Selling Price of House and Lot.....	\$4, 800. 00
Purchaser pays \$500 down (plus loan expense of approximately \$175.00 and secures an F. H. A. Insured Loan of \$4300.00)	
F.H.A. 25 year payment Plan on \$4300.00 Loan:	
Payment to Principal & Interest.....	\$25. 15
Mutual Mortgage Ins. Premium.....	. 88
Fire & Tornado Insurance.....	1. 25
Taxes (Estimated).....	3. 50
	\$30. 78 per month
F.H.A. 20 year Plan:	
Payment to Principal & Interest.....	\$28. 38
Mutual Mortgage Insurance Premium.....	. 88
Fire & Tornado Insurance.....	1. 25
Taxes (Estimated).....	3. 50
	\$34. 01 per month
F.H.A. financing cost based on a \$4300.00 Mortgage:	
Insurance.....	\$15. 00
Commission.....	107. 50
¼% Mortgage Insurance Premium.....	14. 04
1st Month Mortgage Insurance.....	. 88
Abstract Posting.....	10. 00
Abstract Examination.....	4. 98
Application Fee.....	12. 90
Interest during construction.....	6. 20
Taxes.....	3. 50
	\$175. 00

EXHIBIT No. 855

[Charts based on following statistical data, "Exhibits Nos. 855 and 856", appear in text on pp. 5018 and 5028]

BUILDING COSTS PER ROOM

Location.....	New York				Philadel- phia		D. C.				York, Pa.	
	(1)		(2)		(3)		(4)		(5)		(6)	
Name.....	Knicker- bocker Village (5235 Rooms)		Hillside Housing (4948 Rooms)		Carl Mackley Homes (1085 Rooms)		Brentwood Village (1506 Rooms)		Falkland Prop- erties (840 Rooms)		Elm Ter- race Apart- ments (159 Rooms)	
	Dol- lars	Per- cent	Dol- lars	Per- cent	Dol- lars	Per- cent	Dol- lars	Per- cent	Dol- lars	Per- cent	Dol- lars	Per- cent
Land.....	621	34.3	90	8.3	79	7.8	153	11.0	198	15.4	94	8.3
Fees & Miscellaneous.....	75	4.1	59	5.5	70	7.0	121	8.7	89	6.9	99	8.8
Labor.....	386	21.3	355	32.5	366	36.3						
Materials.....	503	27.8	472	43.2	470	46.7	1,120	80.3	1,000	77.7	935	82.9
Contractor Overhead.....	227	12.5	120	10.5	22	2.2						
Total.....	1,812	100.0	1,096	100.0	1,007	100.0	1,394	100.0	1,287	100.0	1,128	100.0
Mortgage.....	1,532	84.6	993	90.6	949	94.2	1,096	78.6	1,000	77.7	887	78.6
Equity.....	280	15.4	103	9.4	58	5.8	298	21.4	287	22.3	241	21.4

HOUSING COSTS PER ROOM PER MONTH

Interest.....	4.87	37.9	3.34	29.1	3.06	24.5	4.51	33.5	4.12	30.1	3.69	21.8
Depreciation.....	2.49	19.4	1.47	12.8	2.26	18.1	2.06	15.3	3.03	22.1	3.57	21.1
Operating Costs.....	4.54	35.3	4.36	38.0	4.13	33.0	2.85	21.1	4.76	34.7	5.94	35.2
Taxes.....	.87	6.8	2.22	19.4	2.51	20.1	.76	5.6	1.29	9.4	1.30	7.7
Vacancy.....	.08	.6	.08	.7	.54	4.3	3.30	24.5	.50	3.7	2.40	14.2
Gain or Loss (Plus or minus).....	+2.42	18.8	+3.33	2.9	-2.72	21.8	+1.00	7.4	+1.84	13.4	-1.57	9.3
Total Income.....	15.27	100.0	11.80	100.0	9.78	100.0	14.48	100.0	15.54	100.0	15.33	100.0
Total Income excluding gain or loss.....	12.85		11.47		12.50		13.48		13.70		16.90	
Year.....	(1937)		(1937)		(1937)		(1935)		(1933)		(1933)	
Amortization.....							1.37		1.70		.94	

"EXHIBIT No. 856", appears in text on p. 5028

EXHIBIT No. 857

[Chart based on following statistical data appears in text on p. 5030]

Hillside Housing

EFFECT OF A 20 PERCENT REDUCTION OF BUILDING COST ON HOUSING COST PER ROOM

	Building Costs	Interest Charges Financial	Taxes	Operat- ing Cost	Depreci- ation	Net Gain	Total
Land.....	\$448,169	\$0.06	\$0.04				\$0.10
Labor.....	1,759,541	.24	.14		\$0.10		.48
Material.....	2,340,079	.31	.19		.14		.64
Fees.....	296,761	.04	.02		.02		.08
Overhead and Profit.....	576,534	.08	.04		.03		.15
Total.....	5,421,084	.73	.43		.29		1.45

Number of Rooms.....	4948
Total cost per room.....	\$1,095.61
Mortgage per room 8/31/37.....	992.7 (90%)
Equity per room.....	102.84 (10%)
Rent per room per month.....	11.80
Net gain per annum per room.....	3.96 (3.72%)
Interest per room per month.....	3.34

Hillside Housing—Continued

EFFECT OF 20 PERCENT REDUCTION

Item	Amount Reduced	Amount Rent	Cumulative	
			Amount Reduced	Amount Rent
Land.....	\$0.10	\$11.70	\$0.10	\$11.70
Fees.....	.08	11.72	.18	11.62
Overhead and Profit.....	.15	11.65	.33	11.47
Labor.....	.48	11.32	.81	10.99
Materials.....	.64	11.16	1.45	10.35
Interest.....	.53	-----	1.98	9.82
Taxes.....	.36	-----	2.34	9.46
Operating Cost.....	.89	-----	3.24	8.57

EFFECT OF 20 PERCENT REDUCTION IN OPERATING WITHOUT REDUCTION IN ORIGINAL COST

Interest.....	\$0.67	\$11.13	\$0.67	\$11.13
Taxes.....	.44	11.36	1.11	10.69
Operating Cost.....	.89	10.91	2.00	9.80

EXHIBIT No. 858

Amount of Mortgages on Urban One-to-four Family Homes Held by Various Lending Agencies, and Amount and Percentage of Such Holdings Insured by the F. H. A., 1935-1937

[Amounts in Millions of Dollars]

Agency	1935			1936			1937		
	Amount Holdings	Amount Ins'd F. H. A.	%	Amount Holdings	Amount Ins'd F. H. A.	%	Amount Holdings	Amount Ins'd F. H. A.	%
Commercial Banks.....	1,189	66	5.6	1,230	256	20.8	1,400	488	34.9
Life Ins. Cos.....	1,351	6	.4	1,305	27	2.1	1,330	70	5.3
Mutual Sav. Banks.....	2,850	5	.2	2,750	14	.5	2,700	28	1.0
B. & L. Ass'ns.....	3,467	16	.5	3,361	66	2.0	3,480	130	3.7
HOLC.....	2,897	-----	-----	2,763	-----	-----	2,398	-----	-----
Individuals & Others.....	6,000	2	(¹)	6,000	39	.6	6,000	112	1.9
Total.....	17,754	95	.5	17,409	402	2.3	17,308	828	4.8

¹ Less than .1%.

Source: An unpublished preliminary report of the Federal Home Loan Bank Board on Estimated Amounts of Outstanding Mortgage Loans on One-to-Four Family Non-Farm Homes, 1925-1937, dated February 28, 1938.

EXHIBIT No. 859

New Mortgage Loans on One-to-four Family Non-farm Homes Made by Various Lending Agencies, Amount of These Loans Insured by the F. H. A. and Percentage of Insured Loans to Total Loans, 1935-1938

[Amounts in Millions of Dollars]

Agency	1935			1936		
	Amount Loans Made	Amount Insured	% Ins.	Amount Loans Made	Amount Insured	% Ins.
Commercial Banks.....	264	66	25.0	430	190	44.2
Life Ins. Cos.....	77	6	7.8	140	21	15.0
Mut. Sav. Bks.....	80	5	6.2	100	9	9.0
B. & L. Assns.....	504	16	3.2	652	50	7.7
H. O. L. C.....	722			154		
Individuals & Others.....	443	1	.2	605	39	6.4
Total.....	2,090	94	4.5	2,081	309	14.8

Agency	1937			1938		
	Amount Loans Made	Amount Insured	% Ins.	Amount Loans Made	Amount Insured	% Ins.
Commercial Banks.....	500	228	45.6	560	252	45.0
Life Ins. Cos.....	232	48	20.7	237	39	16.5
Mut. Sav. Bks.....	120	12	10.0	105	11	10.5
B. & L. Assns.....	804	61	7.6	705	49	7.0
H. O. L. C.....	27			89		
Individuals & Others.....	723	75	10.4	669	122	18.2
Total.....	2,406	424	17.6	2,365	473	20.0

Source: An unpublished preliminary report of the Federal Home Loan Bank Board on Estimated Amounts Loaned Annually, on 1-4 Family Non-Farm Homes, by Type of Lender, 1935-1938, dated April 15, 1939.

EXHIBIT No. 860

Absolute and Percentage Distribution, by Lending Agencies, of New Mortgage Loans on One-to-four Family Non-farm Homes, 1935-1938

[Amounts in Millions of Dollars]

Agency	1935		1936		1937		1938	
	Amount	%	Amount	%	Amount	%	Amount	%
Commercial Banks.....	264	12.6	430	20.7	500	20.8	560	23.7
Life Insurance Cos.....	77	3.7	140	6.7	232	9.7	237	10.0
Mutual Savings Banks.....	80	3.8	100	4.8	120	5.0	105	4.4
Building & Loan Assns.....	504	24.1	652	31.3	804	33.4	705	29.8
Home Owners Loan Corp.....	722	34.6	154	7.4	27	1.1	89	3.8
Individuals & Others.....	443	21.2	605	29.1	723	30.0	669	28.3
Total.....	2,090	100.0	2,081	100.0	2,406	100.0	2,365	100.0

Source: An unpublished preliminary report of the Federal Home Loan Bank Board entitled Estimated Amounts Loaned Annually on 1-4 Family Non-Farm Homes, by Type of Lender, 1935-1938, dated April 15, 1939.

EXHIBIT No. 861

Estimated Amounts of Mortgage Loans Made During Each Year, on One to Four Family Non-Farm Homes, and Distribution of This Total Between Loans for Construction and for Other Purposes, 1925-1938

[Millions of Dollars]

Year	Total, All Lenders	Con-struction	Other Pur-poses ¹	Percent-age of Con-struction to Total Loans	Year	Total, All Lenders	Con-struction	Other Pur-poses ¹	Percent-age of Con-struction to Total Loans
1925	4,727	2,458	2,269	52	1932	978	144	834	15
1926	5,248	2,309	2,939	44	1933	663	101	562	15
1927	5,737	2,966	3,671	36	1934	2,694	106	2,588	4
1928	5,784	1,896	3,888	33	1935	2,090	315	1,775	15
1929	4,960	1,191	3,769	24	1936	2,081	560	1,521	27
1930	3,444	620	2,824	18	1937	2,406	700	1,706	29
1931	2,093	354	1,739	17	1938	2,365	748	1,617	32

¹ Includes loans for refinancing, home purchases, reconditioning, and other purposes.

Source: Preliminary report of Federal Home Loan Bank Board. Estimates for later years are in process of revision.

EXHIBIT No. 862

Distribution by New Homes and Existing Homes of New Mortgages Accepted for Insurance by the F. H. A. Through December 31, 1938

	Number of Mortgages	Value of Mort-gages
New Homes	188,219	\$878,163,601
Existing Homes	175,687	650,945,582
Total	363,906	\$1,529,109,183

Source: Hearings Before H. R. Banking and Currency Committee on Amendments of 1939 to National Housing Act, 66th Cong., 1st Sess., 1939, pp. 171-172.

EXHIBIT No. 863

Effective Interest Rates Charged by Savings and Loan Associations in 1931, All Lenders in 52 Cities in 1934, and Federal Savings and Loan Associations in 1936

District ¹	1931 ²	1934 ³	1936 ⁴	District ¹	1931 ²	1934 ³	1936 ⁴
1.	6.5	5.88	5.7	7.	7.4	6.53	6.4
2.	6.6	5.94	5.7	8.	8.7	6.65	6.3
3.	8.0	6.38	6.1	9.	9.7	7.33	6.9
4.	8.1	6.87	6.4	10.	9.4	7.12	7.0
5.	8.1	6.86	6.1	11.	9.0	7.13	6.4
6.	7.4	6.46	6.3	12.	8.8	7.41	6.7

¹ These are the districts used by the Federal Home Loan Bank Board reports. District No. 1: Conn.; Me.; Mass.; N. H.; Vt.; District No. 2: New York; District No. 3: Penna., W. Va.; District No. 4: Ala., Fla., Ga., Md., N. C., S. C., Va.; District No. 5: Ky., Ohio, Tenn.; District No. 6: Ind., Mich.; District No. 7: Ill., Wis.; District No. 8: Iowa, Minn., Mo., N. D., S. D.; District No. 9: Ark., La., Miss., N. Mex., Texas; District No. 10: Colo., Kans., Nebr., Okla.; District No. 11: Idaho, Mont., Ore., Utah, Wash., Wyo.; District No. 12: Ariz., Calif., Hawaii.

² Based upon special reports submitted to the Finance Committee of the President's Conference on Home Building and Home Ownership, as contained in the Federal Home Loan Bank Review, December, 1937.

³ Compiled from data in Wickens, Financial Survey of Urban Housing, a Civil Works Administration Project based on a survey of 52 cities, published for the Bureau of Foreign and Domestic Commerce, 1937, p. XVIII. This series represents a recombination of the data for owner-occupied residences for the districts used. District rates are unweighted averages of city rates. Inclusion of rented residences would tend generally to raise the totals.

⁴ Based upon reports to the Federal Home Loan Bank Board, published in the Federal Home Loan Bank Review, December, 1937.

EXHIBIT No. 864

JUNE 30, 1939.

Honorable CLYDE WILLIAMS,
United States House of Representatives,
Washington, D. C.

DEAR MR. WILLIAMS: I have observed the testimony offered on the afternoon of June 28 before the Temporary National Economic Committee by Mr. L. Seth Schnitman, Consulting Economist of New York. Mr. Schnitman's testimony, as your own questions in respect to same clearly reveal, creates certain misapprehension in relation to the rental housing operations of the Federal Housing Administration, which you may wish to correct in the record.

In his testimony, Mr. Schnitman exhibited figures which indicated that Brentwood Village, a rental housing project financed by an insured mortgage loan, carried a 24.5% vacancy.¹ Mr. Schnitman later stated that this project had been in operation for two years, leaving the implication that the vacancy referred to applied during the entire operating period. This implication is unfortunate in view of the facts.

Figures used by Mr. Schnitman were apparently taken from the first year's operating statement of the Brentwood Corporation and actually covered an operating period of eleven months running from February 1938 through December 1938. Naturally, at the beginning of this period there was no occupancy, inasmuch as the building had just been completed. By May of 1938 the occupancy of the property was 100%. You will see, therefore, that the figure used by Mr. Schnitman was actually an average occupancy during the year in which the property was first put in operation and being rented. I wish to say further that since May 1938 the vacancy in the building has never fallen above five-tenths of one percent.

Mr. Schnitman also stated that Elm Terrace, a rental housing project in York, Pennsylvania, financed by an insured mortgage, showed an operating loss of 9.3%.² Again, this is based upon the statement of the corporation covering the first year of operation, and cannot be fairly interpreted as typical experience as a going concern. This project has been in operation for a period of only 1½ years and during that period has met all charges for interest, amortization and mortgage insurance, has paid all operating expenses, and has set aside a fund in reserve for major repairs and replacements. It has, moreover, now reduced vacancies to 6.9% as against the 14.2% figure used by Mr. Schnitman.

I may say further that none of the FHA projects have been in operation over a sufficiently long period to provide records of operating cost which would be capable of the type of comparisons attempted by Mr. Schnitman.

Respectfully yours,

MILES L. COLEMAN,
Assistant Administrator.

EXHIBIT No. 865

STATEMENT OF MORTON BODFISH, EXECUTIVE VICE PRESIDENT, UNITED STATES BUILDING AND LOAN LEAGUE, BEFORE TEMPORARY NATIONAL ECONOMIC COMMITTEE HEARINGS ON THE CONSTRUCTION INDUSTRY

Introduction.—Since 1831 the savings and loan associations³ have been the only financial institutions engaged exclusively in accumulating long-term savings or capital for financing, buying, building, owning and modernizing of homes. Economic concentration and control are not a problem since they are all community institutions managed by citizens of the community serving as directors, and owned co-operatively by the more than 6,000,000 people who have their money in them.

¹ See supra pp 5026-5027. See also "Exhibit No. 855", supra p. 5018, and appendix, p. 5482.

² Ibid.

³ The associations were first known as "building societies" in England. Their American offspring simply changed "society" to "association." The United States League (1892) of such associations qualified its members as "local building and loan associations"; "local" in contradistinction to "national" because of the discredit brought by the latter type upon the business; "loan" because of their extension of credit for the purpose of building. Massachusetts stressed the co-operative idea (1877), and to this day calls the associations "co-operative banks." Louisiana placed the emphasis upon the home, and since 1873 associations in that State have been known as "homestead associations." Even in the early days of the League, frequent use was made of the term "savings and loan association", especially in New York State. The latter title has been retained in this statement because of its wider use and its more complete description of the services rendered to investors and borrowers.

The savings or capital in this business is all at work. Its \$6,000,000,000 is practically all invested with not more than 5 to 10 per cent cash and securities on hand. The remaining 90% is actually employed in the financing of homes or invested in loans on homes. Depending on the community conditions and individual institutions, a small portion (approximately 15%) of this 90% is in repossessed real estate rising out of former loan transactions. The savings and loan associations did not retire from business during the depression but continued to make home loans of several hundred million dollars in the worst years. It is true that they had to curtail their activities because of demands for funds on the part of savers who needed money, but they are today almost as active as they were in 1930.

There are nearly 10,000 of these institutions operating under the corporate form, chartered and supervised by the State and Federal Governments, and they are found in practically every community in the country.¹ From such figures as are available we find that nearly half of them are in towns or cities of less than 25,000, a third of them being in towns of less than 10,000. It seems appropriate to discuss the character of these institutions, their facilities for providing credit and the cost of their loan service in any inquiry attempting to explore the problem of private and public policy in connection with home ownership, housing, and the construction industry.

How Savings and Loan Associations Operate.—Broadly speaking, these associations are mutual funds of money built up by the savings and investments of local people, and loaned for the financing of homes and for a small amount of other real estate in the same community. The associations have a single place of business and lend their money within a few miles of their offices. They have about two employees per million dollars of invested savings. If an association pays a 3% dividend, it can loan money at about 5% or 5½% with some advances as low as 4½% and as high as 6%, depending on risk and security. Their loans are exclusively monthly repayment loans, and generally the payments on the loans are about the same or less than the rental value of the property. These payments are applied first to interest and the balance to principal until the debt is paid. For many years nearly all of these loans were made to be paid off in a period of about twelve years. In recent years, however, many associations are making a great many fifteen and twenty-year loans. This results, of course, in a reduction of the monthly payment.

The directors of these associations are elected by the members and are local business and professional men interested in thrift and home ownership. Individually and collectively they give close attention to the business and take a real interest in the promotion of thrift and home ownership in the community. They have, of course, a natural desire to pay a dividend rate sufficient to stimulate thrift and attract investments, but they are equally concerned with providing economic home ownership. Upon the less substantially built houses they are unwilling to make loans for a period of more than about twelve years. Upon more substantial construction, well located, and to borrowers who qualify as good risks, they may and do make loans which amortize over a period up to twenty years. In practically all small communities and in the larger cities these institutions have been an important part of the civic, business and financial structure and have been regarded as outstanding examples of co-operative finance.

Place in Business Picture of '20's and in England.—These institutions have provided long-term amortized credit to millions of people from 1831 to the present and are largely responsible for the fact that approximately 48 per cent of our urban families own their own homes.² They reached down much further in the economic scale than any other lending institution wished or dared to go. How much of the home-building activity of the '20's would have been possible without the provision of savings and loan association credit is indeed a question, when one realizes that the mortgages outstanding on homes in these institutions expanded from approximately \$3,000,000,000 at the close of 1922 to \$7,764,000,000 at the close of 1930. Thus, a net expansion of nearly \$5,000,000,000 in the home-mortgage debt of the country, plus the turnover in the use of these funds, means that about \$10,000,000,000 of home building was carried squarely on the shoulders of the savings and loan associations. Many new institutions of this type were organized in 1922, '23 and '24, the movement being sponsored in many parts of the country by civic-minded business men and persons interested in the construction industry, because it was known that the functioning of these cooperative community agencies was an effective way to finance home construction.

¹ See Table I for assets, membership and number of institutions by States *Building and Loan Annals*, 1933, which appears at the end of this exhibit on p. 5496.

² This compares with a home-ownership record of approximately 20% in Great Britain.

The lending by savings and loan associations has been the predominant part of the home financing for many years in the United States. In the '20's the volume of loans was annually about a billion and a half dollars and it is significant that these specialized institutions carried on during the depression years when mortgage money from most other sources was not available. The loans of savings and loan associations per annum were as follows:

Proportion of Total Urban Home-Mortgage Loans Made by Savings and Loan Associations, Annually, 1925-38

[All amounts in millions of dollars]

Year	Total loans made by private institutional lenders ¹	Loans by all savings and loan associations		Year	Total loans made by private institutional lenders ¹	Loans by all savings and loan associations	
		Amount	Per cent of total			Amount	Per cent of total
1925.....	\$3,327	\$1,584	47.6	1932.....	\$778	\$467	60.0
1926.....	3,648	1,751	48.0	1933.....	460	296	64.3
1927.....	4,037	1,899	47.0	1934.....	478	327	68.4
1928.....	4,184	1,938	46.3	1935.....	925	504	54.5
1929.....	3,560	1,665	46.8	1936.....	1,322	652	49.3
1930.....	2,544	1,170	46.0	1937.....	1,656	896	54.1
1931.....	1,593	810	50.8	1938.....	1,667	797	49.6

¹ Excludes all loans made by the Home Owners' Loan Corporation, individuals, mortgage companies, and miscellaneous lenders. Includes loans made by commercial banks, life insurance companies, mutual savings banks, and savings and loan associations.

Aside from the important volume of this lending, the fact is that during these years of crisis until 1935 or 1936 these institutions furnished the bulk of the home-mortgage credit which was available.

Counterpart institutions to our country's savings and loan associations are the building societies of Great Britain. The performance of the British institutions in the recent home building revival has been pointed to by people in this country so frequently that it hardly needs more than mention here. Suffice it to say that the English building societies, private co-operative corporations identical with our American savings, building and loan associations, using private funds, financed 2,000,000 of the 3,500,000 houses built in England and Wales since the War, increasing the available living quarters by nearly 50 per cent. Business leaders in Great Britain say that this building boom exercised decisive leadership in Britain's emergence from the depression of 1931-32. For several years the annual lending activity of these institutions has been more than half a billion dollars, and this in a country with only a little more than a fourth of our own population.

Rental Housing.—The savings and loan associations generally do not finance rental housing. Furthermore, we think the Government ought to confine its sponsorship and encouragement of residential construction largely to dwellings for owner occupancy. Most of the medium rent apartments vacant today are in neither insanitary nor unsafe condition. People could live in them without degenerating morally or losing their health. Such being the case, what excuse is there for the Government's taking a hand in providing credit or implementing credit to put up more of them? When new apartments are needed, rents will make it profitable for private enterprise to invest in them, and when it becomes profitable there will be no trouble getting equity money flowing in this direction. After all, we are among the world's most efficient builders of apartments or multi-family properties, although we probably haven't attained similar integration and efficiency in the building of individual detached homes. Many of us are sincerely alarmed over the growing governmental emphasis on apartments and housing, as contrasted with the detached house, with its plot of ground, its individuality and its occupancy by the owner.

After all, there is no good reason why government credit or government guarantees should be involved in large-scale housing which is no different from any other commercial enterprise, be it building factories or tourist camps. To slum clearance, in good faith, we have no objection. Government participation there is justified only on the grounds that the people who are to be housed in public dwellings cannot obtain decent shelter elsewhere, and are entitled to relief and philanthropic assistance.

In view of these facts I shall attempt to discuss only financing and construction of homes for owner occupancy, which we feel should be the principal objective and it is further the field in which our institutions can be most helpful.

Long Term Planning.—The independent and practically unrelated character of the various factors in the building industry, together with the peculiarly local character of real estate development and values, makes it impossible to change the direction of home building or home financing in the nation over night. This is a fact to be recognized whenever new proposals, experiments, or programs are considered. Since 1932 a national program has been developing which would build upon existing specialized institutions in all communities and permeate the country with a healthy home-financing and home-building movement. The essence of the program has been the modernizing and strengthening of the thousands of savings and loan associations which are the specialized community home-financing institutions furnishing long-term mortgage money.

The program involved the creation in 1932 of the twelve Federal Home Loan Banks to act as a reserve system or credit reservoirs for associations in thousands of communities. The severity of the depression in real estate, followed by the banking crisis, made additional proposals appropriate. There followed the Home Owners' Loan Corporation and the federal chartering of savings and loan associations. The F. D. I. C. created great confidence in the banks and an accompanying drain of savings away from these community institutions and necessitated similar insurance of accounts in savings and loan associations. This was accomplished through the Federal Savings and Loan Insurance Corporation which was created at the same time as the FHA. The FHA devised to guarantee or insure individual high-percentage, long-term mortgages, and while it has been used somewhat by savings and loan associations, its principal function has been to bring the short-term capital of commercial banks and the funds of Government and insurance lenders into the home-mortgage field in competition with savings and loan associations. The whole program of developing community units is making splendid progress and savings and loan associations are doing between 75 and 100 million dollars a month of home financing at the present time.

Again, the many units and the size of the savings and loan business make it impossible for it to shift direction rapidly. Of course, business recovery is necessary and desirable, but building construction as a vehicle of recovery should be used only upon safe and wise policies from the point of view of the house purchaser, the saver, investor, the community and the public. As it does move forward, however, it moves in the small communities as well as the large, and it carries a tremendous momentum because of the number of people interested and active in all the communities in which these co-operative institutions function.

A further explanation of the type of community in which we find home building and savings and loan financing is worthwhile. In the first place, home ownership is most prevalent in cities of 25,000 or less and in these cities we find 47% of our total nonfarm population. In 1938, 166,000 out of 262,000 single-family units built were constructed in cities of less than 25,000 population. Relating this to the existence and lending activity of our institutions, we can see their distribution by studying the nearly 3,800 institutions which belong to the Federal Home Loan Bank System. More than one-third of these institutions are located in communities of less than 10,000 population. More than half of the membership of the Home Loan Bank System is found in cities with a population of less than 25,000. This distribution is typical of the additional several thousand institutions which have not affiliated or been admitted to the Bank System. The distribution as of June 30, 1938, is as follows:

Population	No. of members	Population	No. of members
0-10,000	1,374	100,000-250,000	245
10,000-25,000	566	250,000-500,000	391
25,000-50,000	325	Over 500,000	591
50,000-100,000	291		

The average size of all member institutions, as of March 31, 1938, again depending upon the Home Loan Bank System for statistics, was less than \$1,000,000—actually it was \$983,944. As evidence that these institutions are financing the building, buying, and owning of small homes, it should be noted that in 1938 they made 365,000 loans, the average size of which was \$2,200. This means that these institutions are financing homes costing from \$2,500 to \$4,500 predominantly. National figures unwittingly distort what is being done in home building and home owning of small homes in the smaller communities for persons of comparatively low income.

Therefore, in these institutions we have a picture of small co-operative institutions serving the smaller communities of this country where the home ownership ideal still predominates, where the birth rate is higher, and where the population is increasing, and where last year 63% of the single-family units were constructed, if we consider 25,000 as the dividing line between small cities and communities and the large cities. We therefore believe that our concept of effective credit expansion in the long-term field through savings and loan associations is the best means of touching and developing the smaller communities of the nation and expanding the mass market for small homes.

Financing Costs.—I have been asked to point this presentation to the costs of financing and the costs incidental thereto. This is particularly agreeable, because the costs of financing are really the only ones which have shown a marked tendency to decrease. Although most houses that were mortgaged in 1930 are still mortgaged, the obligations have been reduced and the reduced debts refinanced on a long-term basis and upon lower rates. Since 1930 when the record level of home-mortgage debt of \$22,000,000,000 was reached, it is estimated that approximately \$18,000,000,000 in new mortgages has been written, in the main on a long-term plan of amortization—a plan originated by the savings and loan associations of this country more than 100 years ago. The widespread growth of the single-mortgage system has virtually eliminated the second and third mortgage, which in the past often burdened the borrower with excessively high interest and other financing charges.

Any survey of the entire home construction picture will show that financing is the one factor in which there has been a definite reduction in cost since 1930 and 1931. Influence of both the FHA and the HOLC has been toward uniformity of rates in the various parts of the country. In my opinion, the actual reduction of interest costs to borrowers has been mainly the result of a superabundance of capital seeking employment in mortgage loans. Capital normally used for other purposes—and this means capital which can easily be weaned away from the home-mortgage field if more profitable channels develop—has been poured into the mortgage market. The result is that there is intense competition for all mortgage loans which come within the average lender's definition of good risks. Competition between savings and loan associations and other lenders, including the life insurance companies, commercial banks making loans because the FHA guarantees them safety and a profit, mortgage brokers making FHA loans and selling them, etc., is intense in practically every sizable community in this country. It is possible that because of the acuteness of this competitive situation, rates may fall somewhat further in some areas. However, it would seem appropriate to concentrate attention on some of the other units of cost, such as the development and sale of land, cost of merchandising new and old houses, and efforts to assist private enterprise becoming more efficient and integrated in the building process itself. The results which may follow any further adjustments in the cost of mortgage money are not nearly so important as economies which can and should be effected in the production and sale of land and homes.

It is significant that although there is not such intense competition for loans in smaller communities as in the cities the general leveling down of interest rates by savings and loan institutions has followed the trend of the more populous areas. An increasing number of associations is offering a graduated schedule of interest rates depending on the all around risk involved in each separate loan.

Some comment has been requested as to the factors which enter into the cost of mortgage money. There are three major components of the interest rate and each is a cost of savings and loan service to the community.

The largest factor is the rate paid to the investor and the saver whereby the association is enabled to accumulate enough money to make credit available to home borrowers. The rate necessary to attract enough funds varies with the different communities. In the less settled parts of our country capital has always been more costly than in the thickly populated areas. The differential is not so marked as it was twenty years ago and may be said to be gradually disappearing. Because of the extremely low rates on all money today savings and loan associations are having to pay less to get money from the public than they would have thought possible fifteen years ago. Rates of 3 and 3½ predominate, with some institutions paying as little as 2½% and some as high as 4%.

Practically, the Government has fixed a minimum or floor on rates to the type of savers-investors who supply the funds to savings and loan associations. This is the United States savings bond long-term rate of 2.9%.

The second component of an interest rate is the cost of operating an institution. Office quarters, officers and personnel, insurance of accounts and supervision, and the many other costs of conducting a financial institution must all be covered in the usual $1\frac{1}{2}$ to 2 percent of assets which represents the overhead cost of operating the institution in the course of a year.

The third component part of the interest cost is the smallest but by no means the least important. It is the cost of reserves in the institution. Reserves are necessary to absorb losses and to cover the risks in lending money for long terms. Conservative policy and statutory requirements necessitate roughly one-half of 1 percent per annum. There are risks which cannot in the nature of things be eliminated. There are about four of them against which there can be no guarantee as far as lending on real estate is concerned.

1. The real estate lender has a major risk to face in the prospect of shifting real estate values. While the real estate cycle is generally longer than the business cycle its swing is more violent. A recent study by the United States Building and Loan League's Committee on Trends indicated that there was a decline of 30 to 40 percent in real estate prices from 1928 to 1933.

2. The lending institution has no control over the industrial or commercial fate of the particular city in which it is lending. This is a risk which must also be taken into consideration. Sometimes factories move and industries decline or fail. It does not happen frequently but few people can tell where the lightning will strike so it is a risk that must be covered.

3. The depreciation of a community within a city is not subject to any control by the lending institution. It constitutes a third risk factor which is unavoidable. As one prominent official has said the community often depreciates more rapidly than many of the houses in it.

4. The individual borrower whose personal qualifications may be up to the highest standards of the association is also subject to the uncertainties of life and fortune. Any breakup or death in the family is an important cause of loan difficulties in many cases. This is a risk which has to be considered as far as every individual borrower is concerned.

No lending institution can stay in business and disregard the three component parts of the interest rate, the cost of the money it uses, the cost of running the institution and the cost of safeguarding the investors' funds through reserves.

Mortgage lending costs cannot economically be forced down below a figure which takes care of these elements.

Building and loan associations almost universally are engaged in making construction loans on one-, two- and three-family homes. Loans to the builder as well as to the future owner-occupant figure prominently in this activity. Such loans, however, do not involve any unusual cost to the builder. Under the building and loan plan operative builders are not penalized because they have to borrow their working capital, but are able to finance at as low rates as the individual home buyer or builder.

The Position Today.—Today there is hardly any scarcity of mortgage funds at reasonable rates in any established community. One result of the abundance of credit at the disposal of home builders is that we seem to be heading into another "financing boom." It looks as if we are going as far and possibly further than prudence would dictate.

During the past 12 to 18 months people have begun to invest in savings and loan institutions in increasing volume. For the past two years associations have been offering \$1,250,000,000 a year to home builders, buyers and modernizers on long-term, monthly-repayment plans at rates of $4\frac{1}{2}$, 5, $5\frac{1}{2}$, and 6 percent in terms of total cost to the borrower. The loan terms are from eight to twenty years. The average percentage of loan is from 65 to 75 percent and many are 80 percent loans. These funds have been derived from the increasing private capital investments in these institutions and from advances made by the Federal Home Loan Bank System which has access to the private capital markets through the sale of non-government guaranteed debentures. In the period in which federal funds were being used to bolster the commercial banks, there was some investment of federal funds in both federally and state-chartered savings and loan institutions, but the program was discontinued in the fall of 1937. The Government has received $3\frac{1}{2}\%$ on the funds invested by the Treasury and the HOLC in these local institutions.

Specialized Institution for Home Financing.—The greatest advantage of the savings and loan association or the building society is that it is a specialized institution, dispensing credit for home building, home buying and home modernizing and nothing else. Their experience is greater and broader than that which any

other type of financial institution can possibly achieve in a short time. They are entirely local in character. They have local connections. They are the natural ally of a local building program, with their ability to co-ordinate and collaborate with other interests in the community active in home building. Nothing could do more to straighten out the confusion in home-owner credit today than a clear concept on the part of the Government that it is going to work out its policies for widespread home ownership through specialized institutions of a private business character. We have a confused picture today of (1) direct government credit; (2) government guarantees of private debts incurred on real estate; and (3) institutions which stand on their own, such as the specialized savings and loan associations.

The people of this country have a choice to make as to the kind of mortgage lending public policy will sponsor. Nothing is gained by drifting along indefinitely with government credit being disbursed or made available through guarantees on the one hand and private business being blamed for not doing enough on the other hand. The tradition of this country has been for credit to flow through private business using a corporate form created and supervised by the State or Federal Governments. A cornerstone in a proper financial system is to have an investor group counterbalancing a borrower group with an honest contract between the two. This is the essence of a sound and successful private credit institution. Such private business institutions have been responsible for the expansion of this country's material wealth. These two groups acting co-operatively in a business sense comprise the ideal private credit institution. The constant reconciling of the investor and borrower interest through competent management results in the best service to the community.

Under this form of lending and mortgage credit the lines are laid out for efficient economic disbursement of loans and collection of payments. Any mortgage lending system has to do these investment and lending jobs efficiently and soundly. It has yet to be demonstrated that public lending, stripped of subsidy and the general government credit, can compete successfully against private credit institutions in terms of cost to the borrower.

The past thirty years have seen the wisdom of specialization by private credit institutions in certain lending fields. We cannot consider the problem of financing homes and home building without coming to the major necessity for specialized home-financing institutions. Homes are long-term consumption goods. To buy or build a home a man has to employ a loan which is a capital loan because of the length of its duration. This means he must get a long-term credit. Common sense and logic dictate that long-term credits such as these should be derived from long-term money whether it be from the saver's \$10 each month put into the savings and loan association or from the larger investor in the same institution who has several hundred or a thousand dollars. It is axiomatic that short-term money should be invested in institutions which use it for short-term loans. I should like to point out here that there is no way to make a long-term home loan liquid in the final analysis, either by placing the credit of the Government behind the borrower as a co-signer on his note or by discount arrangements of any sort. The fact still remains that the man who borrowed the money has borrowed it for 12, 15, or 20 years and although a portion of this is repayable each month, such loans are not an appropriate activity for the institution which has taken a depositor's funds on a demand contract basis.

In terms of public confidence and public attitudes all bank deposits are demand deposits. In a single institution there is no such thing as a segregation of demand and time deposits. So what we are doing essentially when we encourage the investment of commercial bank funds in home mortgages is to go against all of our financial experience in this country as well as the logic of finance that only long-term money should be put into long-term loans. Savings and loan institutions accept funds from the public with a distinct understanding that there is no contractual demand liability. The by-laws and other official documents establishing the relationship between the account holder and the association bring out distinctly the difference between this type of investment and a demand account in a bank. If we were trying to describe exactly the nature of a savings and loan account I suppose it would be most appropriate to say that it is half way between the commercial banks' contracts to return money on demand and the commercial corporations' obligations to return money which is lent to it through bonds or debentures.

Thus, on the question of whether demand money or savings put away in a liquid institution should be the basis of our home-mortgage credit, we feel strongly that home mortgages are no place for short-time money.

Investment banking has been divorced from commercial banking, and probably savings or thrift banking should be likewise divorced from commercial banking and a specialized mortgage structure created. We believe it can be done by appropriate government provision of corporate vehicles rather than expansion of direct government credit or the use of government guarantees.

Moreover, the specialized institution today is doing far more than advancing money. It is supervising construction, advising the home purchaser on countless details of building and finance, and providing a personal and local service that is helping to make home ownership a one-package operation, instead of a multiplicity of individual and bewildering contacts. The savings and loan association, as a specialist in the field, is undertaking to co-ordinate the different factors involved in home building. Consequently a borrower does not pay money simply for the use of money.

Consumer's Dilemma.—Savings and loan associations have probably had a better chance to observe the tenor of prospective home builders' and buyers' minds than any other agency in the field. Operators of these associations have long experience. Many of them remember how people came flocking to the doors of the associations asking for loans to build houses in the early part of the century as well as in the boom of the '20's. Out of this background of experience I think we can give some helpful information regarding the consumer's dilemma.

Your committee wants to know why the 10 percent or 20 or 25 percent down payment which somebody must put up before mortgage money is put to work is not being invested more frequently and more rapidly. It is a question of why more purchasers do not want to invest their savings in real estate either by occupancy themselves or with the hope of profit therefrom.

The most important drawback today is the fact that it is still cheaper to rent a decent place to live or to buy an existing house than it is either to build or to buy a new one. In other words, current rents and building costs are still out of balance. The shortage of places to live has not become acute enough in most communities to drive up rents. Building costs have not gone down very much. In spite of the mathematical deductions and theoretical measurements of the shortage of houses which should face our country today, we should be realistic and face the fact that there are vacancies in many cities and that the usual economic signs of a housing shortage, namely, higher rents, are not prevalent in most cities today. There are lots of places where building is needed. There are lots of places where it can be stimulated and consumer interest can be awakened but there are hard, cold facts in the form of existing vacant places to live in which seem to indicate that we are not in line for a building boom as yet although we can possibly work together to add a billion dollars or so to the expenditures for home construction per year.

The fact that a family can buy an existing house cheaper than it can buy or build a newly built one comes right to the fore in our consideration of the residential real estate owned by all types of institutions worth probably \$2,000,000,000 to \$3,000,000,000. Public absorption of this volume of undigested property would seem to be a necessary forerunner of any substantial amount of new building in many areas. People will not build for their own consumption so long as they can get as much house for 25 percent less already built. And people will not invest in new housing either for sale or for rent when common sense and business considerations to not press them in that direction. Of course if everybody goes out and works at selling and building new homes, we will increase the volume. Of course, if economic conditions are not right for the absorption of tens of thousands of new homes, then the ultimate effect will be over-building and a decrease in the value of all real estate in the communities where such houses are not absorbed. The ultimate as well as the immediate effects in the construction of all types of housing should be considered.

In many areas real estate taxes are a true damper on home ownership. Everybody generally agrees that homes are bearing a disproportionate share of a very heavy tax burden. This condition was probably most effectively and dramatically portrayed in one of our eastern cities upon the occasion of the recent failure of one of the largest banks in that city. Excessive real estate taxation was credited with being the chief factor in its closing. In some States homestead tax exemptions have been effective in stimulating home building and it may well be that the United States can make studies of this question looking to an equalization of taxation upon homes with a resultant encouragement to buyers and builders alike.

Another deterrent to home building today is the continual agitation about public housing and the impression being given that this public housing will be made available for ordinary working people who normally build and own their own

homes. Of course, the working man is not going to buy a new cottage and pay \$25.00 a month on the purchase of it for ten to twenty years if he thinks he can get into a government apartment providing twice as expensive accommodations and rent it for \$20.00 a month. We do not question the advisability of relieving slum conditions. We do seriously question the wisdom of building expensive apartments with public funds for the middle income people who otherwise would be buying and building homes.

Suggestions.—There are some things that the government can do to facilitate private home financing. It can encourage the group of savings and loan associations that are financing the bulk of loans on homes today. It can co-operate in legislation needed to implement and perfect this savings and loan program and not permit such legislation to be obstructed by the commercial bankers with their idle capital or by the great government departments working in co-operation with banks. Distinctly I would like to make it clear that we think the agencies already exist whereby an abundance of home financing can be provided and whereby all the home building needed at this time can be financed.

Comment has been requested on certain government agencies touching the home-financing and construction field. The RFC Mortgage Company and the Federal National Mortgage Association, both operating within the general jurisdiction of the R. F. C., have bought quite a number of Federal Housing Administration mortgages on single family homes from the original mortgagees. Our institutions, with few exceptions, hold in their own portfolio the mortgages they make. While the purchase of mortgages by these government agencies has not yet assumed alarming proportions, it is tantamount to direct government financing of homes. We believe that tapering off of this activity will strengthen the volume and earnings of the community institutions.

The government guarantees on F. H. A. loans were adopted as an emergency measure for a limited period, and although the period of the emergency has been extended twice by statute, we think it entirely fitting that the limits have been retained as far as the insurance of existing mortgages is concerned. It is not, in our opinion, beneficial for the government to guarantee to endorse \$18,000,000,000 or more of private real estate debt under a plan which the legislators enacting it originally intended to insure \$2,000,000,000 at the outside.

The Federal Home Loan Bank System, the federal savings and loan system, and the Federal Savings and Loan Insurance Corporation are all permanent institutions by statute. They are comparable to the Federal Reserve System, the national bank system and the Federal Deposit Insurance Corporation, and in our opinion should be continued on a permanent basis. They operate with a nominal use of government credit, are 100% self-supporting, and provide machinery which has proved extremely useful. The underlying institutions in this system are local mutual associations privately owned and managed and rendering a constructive service.

One factor affecting the flow of credit for the financing of homes about which the Government can do something is the legal machinery surrounding the business today. It would be most helpful if the government agencies would co-operate in securing improved legislation throughout the country, making it more economical to deal with real estate titles.

It would be even more helpful and would be likely to lower the cost of money by diminishing the risk if government agencies would co-operate in securing legislation in the States to modernize laws for realization upon real estate security when necessary. In some of the States the laws on this subject are utterly hopeless and an improvement of them would look toward higher-percentage, longer-term and lower lending cost. One factor of tremendous importance in the British home-building program has been the ease and economy with which a lender can realize on his security under English law.

It has been suggested that savings and loan associations invest a portion of their funds by participating in the equities of large-scale rental projects. It is doubtful whether the institutions, even under the supervision of the Federal Home Loan Bank Board, are qualified to select and make such investments and whether any of their funds and activities should be pointed toward the creation of large-scale rental housing. However, with the high-percentage loan policies which are being urged upon the public and forced upon financial institutions, it is possible that these associations should participate in the development of neighborhoods or communities and possibly through the building of small homes for owner occupancy. If the funds of savings members are to be invested in loans approaching the total cost of land and improvements, it is possible that the institution itself should engage in subdivision development and construction

activities so that the home owner may share in the economics of integrated financing and construction, plus the assurance that the house is well constructed, of excellent materials and is a part of a logical community development.

Finally, in a study of what the Government can do about home building in the United States, we are brought face to face with certain issues which are most fundamental to American life and to American business. For more than 150 years homes have been privately built and owned. Public sentiment has favored home ownership. Tenement dwellers and renters look forward to debt-free home ownership. Home ownership promotes good citizenship. The Government can encourage thrift and home ownership in many directions. It can discontinue its competition with the investment program of savings and loan associations by discontinuing postal savings or by investing postal savings in home-financing institutions instead of depositing them in banks to create more idle money. It can discontinue its lavish advertising program for the sale of baby bonds to our savers promising a return of 2.9% and cash on demand. The Government can confine its public housing activities to legitimate slum clearance and to provision of housing for families of no income or families of extremely low income and families of too uncertain income to undertake home purchase.

We believe that we have an adequate number of institutions performing an effective service in the field of financing homes today. We hope that the Government will not establish arrangements or new institutions supported by subsidy or the general government credit. Any attempts to extend further the length of loans move us toward permanent debt during the entire productive period of the head of the family. The initiative of private individuals and the resourcefulness of financial institutions have been amply implemented as far as home-mortgage credits and loan plans are concerned in our judgment.

Our associations today are lending about \$75,000,000 to \$100,000,000 each month and have been doing so for two or three years. Our volume of credit gradually but surely increases. We have reasonable prospect that as soon as the consumer demand is available, our institutions can again be lending as substantially as they did in the '20's.

Builders, little and large, should take more responsibility for the character of their product and for creating a community of satisfied owner occupants. English experience suggests that the builders' pool which is in reality a joint guarantee of repayment in connection with excess financing has been a stabilizing influence as to the character of people who were sold homes on extremely low down payments as well as to the character of the house accommodations in community or estate developments. If homes are to be sold on terms equivalent or lower than rent with 5 or 10% down payments, surely those who profit in a substantial way from the building transaction should leave a portion of their profits in the transaction until the home owner has developed a substantial equity, rather than throw this entire risk on the government guarantee, as in the case of the FHA, or upon the financial institutions which of necessity must not accept such risks alone unless there is some joint responsibility.

Certainly the country needs a whole revival of the city planning movement with appropriate control of subdivision development, prohibition against the renting of unsafe or insanitary quarters, demolition of insanitary and dangerous housing, and like matters which can only be accomplished by local government probably under the stimulus and guidance of national leadership.

Conclusion.—We have given too exclusive attention to the credit problem with regard to home ownership and construction and too little attention to creating local conditions under which the customer would desire to purchase and be assured of a first-class product in proper community surroundings. We have paid too little attention to all of the costs of ownership, be they taxes, merchandising, materials, construction, and the like, as contrasted to credit costs. We should not forget that too much credit is almost as dangerous to the individual as too little.

TABLE I.—Building and loan annals—Secretary-treasurer's report

SUMMARY TABLE OF NUMBER OF ASSOCIATIONS, TOTAL MEMBERSHIP AND TOTAL ASSETS OF SAVINGS, BUILDING AND LOAN ASSOCIATIONS, BY STATES, 1937

Number of associations				Number of members			Amount of assets			
State	Federal	Total		State	Federal	Total	State	Federal	Total	Increase or decrease of total over 1936
Alabama.....	24	14	38	8,250	5,120	13,370	\$7,821,273	\$4,948,272	\$12,669,545	\$9,095,303
Arizona.....	1	2	3	718	613	1,331	424,257	1,504,464	1,928,721	762,046
Arkansas.....	10	35	45	4,800	9,593	14,393	4,129,211	8,639,718	12,758,929	1,356,997
California.....	124	69	193	218,401	36,183	254,584	224,504,988	68,456,501	292,961,489	14,880,431
Colorado.....	36	25	61	17,505	31,505	49,010	12,268,471	16,526,261	28,794,732	47,319
Connecticut.....	37	15	52	27,907	7,422	35,329	22,896,347	8,157,925	31,054,272	4,258,814
Delaware.....	43	---	43	14,960	---	14,960	12,414,227	---	12,414,227	149,990
Dist. of Columbia.....	27	11	38	129,780	---	129,780	120,614,000	---	120,614,000	7,343,508
Florida.....	45	49	94	6,750	15,398	22,148	6,126,289	29,100,540	35,226,829	9,415,540
Georgia.....	23	43	66	9,998	11,151	21,149	6,396,672	14,022,419	20,419,091	6,052,125
Idaho.....	4	---	4	1,800	6,508	8,308	801,892	6,146,403	6,948,295	1,106,507
Illinois.....	660	102	762	286,500	55,507	342,007	258,057,130	81,879,596	339,936,726	16,132,623
Indiana.....	208	66	274	89,600	67,868	157,468	77,797,971	77,783,349	155,581,310	2,219,575
Iowa.....	68	32	100	38,990	6,096	45,086	33,027,368	7,786,249	40,813,617	1,115,017
Kansas.....	129	20	149	109,512	6,500	116,012	66,928,112	8,734,574	75,712,686	2,562,354
Kentucky.....	127	48	175	72,820	39,543	112,363	53,739,583	51,277,281	105,016,864	5,497,198
Louisiana.....	70	12	82	98,418	5,987	104,405	77,585,442	11,498,970	89,084,412	9,953,340
Maine.....	36	6	42	24,028	433	24,461	22,691,391	442,012	23,133,403	627,773
Maryland.....	28	---	28	201,300	12,288	213,588	140,900,000	17,931,441	158,831,441	5,078,759
Massachusetts.....	189	26	215	344,251	55,758	400,009	396,782,814	79,409,501	476,192,315	14,946,572
Michigan.....	68	24	92	81,289	14,335	95,615	94,309,666	19,259,920	113,569,587	1,816,475
Minnesota.....	47	31	78	20,019	28,173	48,192	21,873,804	28,767,060	50,640,864	7,919,749
Mississippi.....	25	21	46	4,200	7,023	11,223	2,514,800	3,158,487	8,306,487	1,154,279
Missouri.....	184	37	221	155,000	23,063	178,063	95,291,779	32,601,225	127,893,004	2,701,099
Montana.....	20	3	23	14,825	4,396	19,221	9,568,395	1,595,123	11,163,518	4,781
Nebraska.....	76	16	92	83,005	4,396	87,401	65,852,076	5,425,121	71,277,197	5,099,805
Nevada.....	4	---	4	1,140	---	1,140	952,404	---	952,404	91,135
New Hampshire.....	28	2	30	14,074	3,477	17,551	11,157,512	5,790,686	16,948,198	1,434,735
New Jersey.....	1,423	---	1,423	585,395	---	585,395	792,361,056	---	792,361,056	91,116,996
New Mexico.....	13	---	13	3,329	---	3,329	3,578,944	1,217,374	4,796,318	583,005
New York.....	220	64	284	376,568	899	377,467	256,266,687	122,233,902	378,500,589	15,101,673
North Carolina.....	168	15	183	100,272	5,112	105,384	67,415,711	8,399,193	75,814,904	9,779,362
North Dakota.....	18	5	23	7,930	1,817	9,747	8,748,137	1,647,446	10,395,601	558,847
Ohio.....	621	103	724	1,157,475	149,325	1,306,800	648,820,718	161,777,514	810,598,232	18,172,974
Oklahoma.....	41	32	73	14,401	24,225	38,626	19,757,674	39,313,016	59,070,690	2,196,995

Alabama, \$9,095,303; Arizona, 762,046; Arkansas, 1,356,997; California, 14,880,431; Colorado, 47,319; Connecticut, 4,258,814; Delaware, 149,990; Dist. of Columbia, 7,343,508; Florida, 9,415,540; Georgia, 6,052,125; Idaho, 1,106,507; Illinois, 16,132,623; Indiana, 2,219,575; Iowa, 1,115,017; Kansas, 2,562,354; Kentucky, 5,497,198; Louisiana, 9,953,340; Maine, 627,773; Maryland, 5,078,759; Massachusetts, 14,946,572; Michigan, 1,816,475; Minnesota, 7,919,749; Mississippi, 1,154,279; Missouri, 2,701,099; Montana, 4,781; Nebraska, 5,099,805; Nevada, 91,135; New Hampshire, 1,434,735; New Jersey, 91,116,996; New Mexico, 583,005; New York, 15,101,673; North Carolina, 9,779,362; North Dakota, 558,847; Ohio, 18,172,974; Oklahoma, 2,196,995.

	14	2, 103	37	16, 982	10, 060	27, 042	646	14, 301, 958	10, 703, 808	25, 011, 766	3, 704, 411	Oregon.
Pennsylvania.....	2, 103	54	2, 157	510, 402	17, 215	527, 617	58, 863	573, 576, 873	23, 128, 363	596, 705, 236	62, 519, 431	Pennsylvania.
Rhode Island.....	8	1	9	49, 401	250	49, 651	2, 282	35, 856, 065	252, 075	36, 108, 140	1, 742, 272	Rhode Island.
South Carolina.....	44	30	74	88, 110	9, 316	17, 426	1, 963	8, 030, 285	11, 270, 063	19, 300, 348	3, 766, 046	South Carolina.
South Dakota.....	14	5	19	5, 290	1, 515	6, 805	92	3, 173, 279	1, 406, 407	4, 579, 686	111, 841	South Dakota.
Tennessee.....	17	38	45	2, 290	12, 889	15, 179	7, 781	1, 700, 000	17, 886, 758	19, 586, 758	1, 903, 088	Tennessee.
Texas.....	87	89	176	42, 762	16, 713	59, 475	5, 433	59, 530, 001	24, 186, 152	83, 716, 153	6, 001, 015	Texas.
Utah.....	15	6	21	21, 600	4, 830	26, 430	201	21, 206, 610	5, 290, 144	26, 496, 754	848, 056	Utah.
Vermont.....	42	2	14	5, 500	908	6, 408	850	4, 270, 726	1, 273, 555	5, 549, 281	543, 041	Vermont.
Virginia.....	77	21	98	38, 650	7, 467	46, 117	2, 344	30, 995, 147	13, 263, 090	44, 258, 237	1, 227, 182	Virginia.
Washington.....	34	36	70	70, 000	72, 222	142, 222	7, 155	19, 000, 000	33, 742, 091	52, 742, 091	8, 046, 888	Washington.
West Virginia.....	48	21	69	21, 300	8, 241	29, 541	729	14, 816, 377	11, 690, 324	26, 507, 001	2, 505, 471	West Virginia.
Wisconsin.....	175	27	202	173, 886	6, 111	179, 997	4, 144	178, 462, 121	8, 672, 614	187, 134, 735	336, 373	Wisconsin.
Wyoming.....	5	9	14	3, 462	1, 221	4, 683	4, 062	3, 297, 696	2, 083, 488	5, 331, 184	157, 559	Wyoming.
Hawaii.....	9	1	10	21, 500	1, 050	22, 550	1, 718	4, 329, 983	1, 973, 460	6, 003, 453	873, 506	Hawaii.
Alaska.....	1	1	1	-----	56	56	56	-----	95, 975	95, 975	95, 975	Alaska.
Total.....	8, 334	1, 328	9, 662	5, 316, 276	916, 743	6, 233, 019	107, 048	4, 619, 557, 192	1, 092, 101, 248	5, 711, 638, 410	50, 277, 080	Total.

1 Organization not complete.

2 Estimated.

"EXHIBIT No. 866", introduced on p. 5148, is on file with the Committee

"EXHIBIT No. 867", introduced on p. 5148, is on file with the Committee

EXHIBIT No. 868

DEPARTMENT OF JUSTICE,
May 18, 1938.

Attorney General Cummings today made the following announcement:

The Department of Justice recently announced a policy under which there would be issued a series of public statements throwing light on the prosecution policy with respect to antitrust laws. The necessity for making such public statements with respect to antitrust prosecutions arises from the fact that they present a problem different from the enforcement of other criminal statutes. In antitrust cases the rule of reason necessarily requires the exercise of judgment on the part of the prosecuting arm in order to give the general principles of the antitrust laws an equitable and economic application to unlike cases and dissimilar industrial situations. A guide to businessmen as to prosecution policy should be furnished by the Department wherever possible.

There is set forth below an outline of the general form which future statements of this character will take:

1. *Form of Statements.*—The statements will be issued in the form of announcements signed by the Assistant Attorney General in charge of the Antitrust Division, and approved by the Attorney General.

2. *Purpose of Statement.*—The aim of these statements in connection with any particular proceeding or investigation is to serve (1) as a guide to businessmen who seek information on the probable action of this Department in similar circumstances; (2) to aid the Department itself in formulating a consistent policy of antitrust law enforcement; (3) to serve as a warning to those engaged in similar illegal practices; and (4) to call the attention of the Congress to the interpretation and application of antitrust laws by the Attorney General, as they may have a bearing upon contemplated legislation.

3. *Contents of Statements.*—These statements on prosecution policy will not discuss the guilt or innocence of particular defendants; they will not interfere with the presumption of innocence which defendants have in a criminal case or the advantage of the burden of proof which they enjoy in a civil case. They will be confined to the reasons for departmental action. It may be assumed as a matter of course that the Department would not take action unless it had in its possession evidence which in its judgment warranted it in proceeding. Under such circumstances, the Department is under a public duty to present such evidence to an impartial judicial tribunal.

In general, the statements will cover (1) the conditions which the Department believes to exist in the particular industry which create monopolistic control or restraint of trade; (2) the reason why the particular procedure was followed, whether a civil suit, consent decree, criminal prosecution, acceptance of pleas of *nolo contendere*, or dismissal of the proceeding; and (3) the economic results which are to be expected from its action in the particular case.

DEPARTMENT OF JUSTICE,
May 18, 1938.

The following announcement, and statement of policy, concerning the Automobile Finance investigation was issued today by the Department of Justice:

The Department of Justice proposes to present evidence before a grand jury in South Bend, Indiana, with reference to violations of the antitrust laws by Ford Motor Company, Chrysler Corporation and General Motors Company and three finance companies associated with them. The evidence which it is proposed to present will be substantially the same as that presented to a grand jury in Milwaukee, Wisconsin, prior to its discharge by Judge Geiger last winter.

At the time of the original presentation, the Department was of the opinion, and is now of the opinion, that its investigation has disclosed evidence of certain violations of the criminal provisions of the antitrust law by these automobile manufacturers and their associated finance companies which warranted submission to a grand jury.

It is the announced policy of the Department of Justice to issue public statements in order to clarify its prosecution policy with respect to antitrust laws. Such statements will be made in connection with particular cases, to the ends that it shall be a guide to businessmen and the public in similar situations. In this case the only policy which needs statement and clarification concerns the concurrent use of civil and criminal remedies granted by the antitrust laws. Such clarification is important here because this policy was questioned by the court in the original grand jury presentation at Milwaukee, Wisconsin. As a result of this, there has been some misunderstanding of the policy in spite of the fact that it was publicly stated before committees of both the Senate and the House. Therefore, in order to clear up this misunderstanding with respect to the concurrent use of civil and criminal procedures, it is thought advisable to restate publicly the course which the Department intends to pursue in this and future cases.

Our policy which has been stated to the representatives of the companies involved in this case may be summarized as follows:

1. The Department will not compromise a criminal case upon an agreement by the defendants to refrain in the future from the violations with which they are charged. We cannot accept the responsibility of condoning violations of the antitrust laws because of a promise to reform.

2. The commencement of a grand jury proceeding or a criminal prosecution does not do away with the presumption of innocence which surrounds any defendant. It only means that this Department is in possession of evidence of violation of law which it deems so compelling that it cannot accept the responsibility of ignoring it and must therefore present it to an impartial judicial tribunal. While the Department must exercise a preliminary judgment as to the weight of the evidence, the ultimate responsibility for the weighing of that evidence is necessarily on the grand jury and petit jury and the court.

3. In using civil and criminal proceedings concurrently, (a practice which has been approved by the Supreme Court in the case of *Standard Sanitary Manufacturing Co. v. United States*, 226 U. S. 20) it is not the purpose of the Department to coerce or compel the prospective defendants to consent to a civil settlement on threat of criminal prosecution. The sole purpose of the criminal proceeding is to present to an impartial tribunal evidence which leads the Department to believe that the antitrust laws have been violated. At the same time it has never been the policy of the Department to bar its doors at any stage of the proceeding against businessmen who may desire to propose a practical solution which is of major and immediate benefit to the industry, to competitors and to the public and which goes beyond any results which may be expected in a criminal proceeding.

Such a solution must be voluntary. While we do not invite the submission of such proposals, it will be our policy in all cases to examine and consider any which may be made. They must offer in addition to a prohibition of the violations of the antitrust laws with which the prospective defendants are charged, substantial public benefits connected with the policy of maintaining free competition in an orderly market which could not be obtained by the criminal prosecution.

If proposals of this character are submitted to the Department, it conceives that its duty is to present them to the court before whom the proceeding is pending in order that he may determine whether a *nolle prosequere* is justified in the public interest.

Where the proceeding is still pending before a grand jury which has not yet returned indictments, this method is not strictly a *nolle prosequere*. However, the analogy of recommendation for *nolle prosequere* will be followed in cases where consent decrees have been submitted to the Department before indictment. The judge in such cases will be informed of the submission of proposals which the Department believes to be in the public interest in order that, if he deems that course desirable, they may be presented to the grand jury for consideration in connection with the evidence.

THURMAN ARNOLD,
Assistant Attorney General.

Approved:

HOMER CUMMINGS,
Attorney General.

"EXHIBIT No. 369," introduced on p. 5169, is on file with the Committee

"EXHIBIT No. 870", appears in text facing p. 5174

EXHIBIT No. 871

CHRONOLOGICAL RECORD OF CONTACTS MADE BY HOME OWNER AND GENERAL CONTRACTOR DURING CONSTRUCTION OF HOUSE

DESCRIPTION OF HOUSE

The house under consideration is a two-story Cape Cod style brick dwelling located in Arlington, Virginia. It contains a living room, dining room and kitchen on the first floor. A garage is attached. On the second floor there are two bedrooms, a bath, and a study located over the garage. There is a full-sized basement.

The lot on which the house is located required no filling or grading, except that it was necessary to level and distribute the earth excavated from the basement. Sidewalks and sewers had been placed when the lot was purchased. However, city water and gas were not available. The approximate value of the finished house, including lot, is between \$8,000 and \$9,000.

Since the house was not financed in the usual channels, no consideration is given in this record to the contacts made in financing.

<i>Approximate Date of Contact</i>	<i>Specific Contacts Made by Owner or General Contractor During Construction of House</i>
1934-----	Lot purchased outright by owner from real estate corporation.
1934-----	Title searched by lawyer employed by owner. Title cleared.
<i>1938</i>	
February-----	Owner decided to build.
March-----	Owner made arrangements with general contractor to handle all details regarding construction of house. However, owner was to be consulted during construction regarding types and costs of materials, changes in plans, etc.
March-----	Letters were written by owner and general contractor to county water department and to gas company regarding the possibility of obtaining service. Replies received indicated the cost was too high. Other plans were decided upon.
March 23-----	Owner purchased stock plans.
April 4-16-----	General contractor obtained bids from four lumber companies to supply all necessary rough and finished lumber called for by plans. This involved two or more contacts with each company. Entered into contract with one company.
April 4-16-----	General contractor obtained bids from two contractors for the brick and masonry work. Entered into contract with one.
April 4-16-----	General contractor obtained bids from three carpenters. Entered into contract with one, who was ordinarily an employee of another contractor.
April 12-----	Owner had stock company's architect make small revision and addition to plans.
April 14-----	General contractor obtained building permit from county.
April 16-----	Surveyor marked off house on lot according to plans.
April 20-----	County inspector condemned surveyor's work; claimed house was too close to building line.
April 23-----	Surveyor marked off house according to new regulations.
April 30-----	General contractor sub-contracted excavation of basement.
April 30-----	County inspector, after having been called by phone three times, finally inspected and approved surveyor's work.
May 2-----	Basement excavated by sub-contractor.
May 2-----	Laborer employed to dig out foundation footings.
May 2-----	Lumber company notified to deliver rough lumber.
	Contractor for brick work notified to begin shortly.

<i>Approximate Date of Contact</i>	<i>Specific Contacts Made by Owner or General Contractor During Construction of House</i>
May 4-----	General contractor contacted concrete company and concrete footings were poured.
May 2-7-----	General contractor obtained bids from three companies for steel work. Contract entered into with one company.
May 5-----	County inspector was notified, and inspected footings.
May 7-----	Drain tile and gravel were purchased by general contractor, and laborer was engaged to place tile around footings and foundation.
May 10-----	Bricklayer began laying foundation after being delayed several days by rain.
May 11-----	General contractor purchased from hardware store three kegs of nails for rough lumber work, one shovel for laborer, one quart of linseed oil and one gallon of paint, the latter to be used for priming window frames, etc.
May 12 & 13-----	Carpenter placed steel beams and first floor joists and began setting window frames for first floor.
May 12-----	Laborer employed for leveling earth excavated from basement and for priming window frames with paint.
May 16-21-----	General contractor negotiated with and obtained permission from real estate corporation to use well on adjoining lot.
May 19-----	General contractor purchased one gallon of turpentine from hardware store.
May 20-----	General contractor engaged three laborers to clean out well on adjoining lot.
May 24-28-----	Construction work delayed by rain.
May 24-----	General contractor purchased wood laths and roofing felt from two different dealers.
May 25-----	General contractor purchased one gallon of paint.
May 24-28-----	General contractor obtained bids from three plumbers. Entered into contract with one.
May 28-----	General contractor purchased 20 pounds of finishing nails, 20 pounds of galvanized nails, and one roll of tar paper from hardware store.
June 1-----	General contractor purchased 50 pounds of roofing nails from hardware store.
June 6-8-----	Carpenter was delayed while waiting for bricklayer to return to job to finish up.
June 6-----	General contractor purchased one keg of cut nails from hardware store.
June 7-----	General contractor purchased from dealer one ventilator for roof.
June 7-11-----	Plumber began laying out work and roughing in pipes.
June 13-17-----	General contractor purchased insulating material from dealer. General contractor purchased electrical fixtures and engaged own man to do electrical work.
June 14-----	General contractor hired laborer to place insulating material.
June 15-----	General contractor purchased caulking compound for window and door frames and walls.
June 16-----	General contractor engaged laborer to place caulking compound.
June 17-----	General contractor obtained insurance policy for house.
June 20-25-----	General contractor obtained bids from three tile setters to put tile in bathroom. Entered into contract with one who had to be called back twice because of unsatisfactory work.
June 20-25-----	General contractor obtained bids from two plasterers. Let contract to one.
June 23-----	General contractor contracted with concrete company and laborer for placing of concrete basement.
June 24-----	General contractor purchased electric pump and pressure tank, which were installed by plumber.
June 23-25-----	General contractor engaged contractor to attach gutters and spouts on roof.

<i>Approximate Date of Contact</i>	<i>Specific Contacts Made by Owner or General Contractor During Construction of House</i>
June 27-----	Second coat of plaster finished. Carpenters delayed several days while plaster was drying.
June 29-----	General contractor purchased drain tile and cement from material dealer for drain from roof spouts to street.
June 30-----	General contractor selected and purchased hardware for doors, windows, etc., from hardware store.
July 1-----	General contractor contacted several companies in regard to door for garage. Finally selected a special overhead door which was installed by the company.
July 1-----	Carpenter was paid extra for flashing of roof which had not been included in his contract.
July 1-----	Bricklayer was called back to touch up work and clean off bricks.
July 2, 4, 6-----	General contractor engaged two laborers to complete grading the yard about house.
July 6-9-----	General contractor obtained bids from two painters for interior and exterior painting.
July 13-----	General contractor contacted four dealers handling electric refrigerators, and purchased one for delivery a few weeks later.
July 14-----	General contractor entered into contract with an individual to furnish sod for part of the yard.
July 18-23-----	General contractor instructed lumber company to pick up extra rough lumber and to supply additional flooring which was short of quantity agreed upon.
July 20-----	General contractor requested concrete company to deliver concrete for front stoop and steps.
July 21-23-----	General contractor entered into contract with paper hanger.
July 21-23-----	General contractor contacted three companies handling oil burners. Entered into contract with one to install oil burner.
July 21-23-----	General contractor secured bids from two floor finishers and let contract to one.
July 21-23-----	General contractor contracted with company to furnish built-in kitchen cabinet and linoleum for kitchen floor.
July 25-27-----	General contractor entered into contract with company to furnish and install gas stove and gas tank.
July 25-29-----	Paper hanger refused to work while floor finishers were working. Floor finishers had to wait day for paper hanger to finish. Painter couldn't put on final coat of paint in some rooms until floor finishers were through. Plumber was interfering with floor finishers because of the necessity of fixing leaks in radiators in room where floor finishers were working.
Aug. 3-----	Painter finished last part of his work. This completed all work on house by general contractor, sub-contractors and laborers. However, much miscellaneous work, including the making of screens, remained for the owner and occupant.
Aug. 8-13-----	Owner returned unused material furnished by iron works company and received credit after several negotiations.

EXHIBIT No. 873

Contract Construction Industry—Number of Establishments; Work Performed; and Number of Employees; by Kind of Business, 1935

Kind of Business	All reporting establishments— No. of establishments	Establishments reporting on work performed and on employees		
		No. of establishments	Value of work performed (thousands)	No. of employees (average for year)
Total.....	75,047	69,838	\$1,457,710	409,137
General contractors.....	11,491	9,883	834,391	258,344
Building ¹	8,337	7,241	356,512	106,366
Highway.....	2,116	1,723	240,949	87,242
Heavy construction.....	1,038	919	236,930	64,736
Special trade contractors.....	63,556	59,955	623,319	150,793
Carpentering.....	7,853	7,633	30,123	6,974
Concreting.....	981	946	10,884	3,736
Electrical.....	8,473	7,457	93,229	21,014
Elevator installation.....	404	351	21,394	4,182
Excavating and/or foundation.....	375	364	11,913	4,005
Glass and glazing.....	141	140	2,425	509
Heating and plumbing group.....	23,856	22,947	269,031	58,249
Heating and piping.....	1,809	1,607	52,423	10,181
Heating and piping with sheet metal.....	1,790	1,733	26,284	6,513
Heating, piping, plumbing.....	8,441	8,181	107,413	23,228
Heating, piping, plumbing with sheet metal.....	1,339	1,329	24,020	5,754
Plumbing.....	9,984	9,612	56,162	11,960
Plumbing with sheet metal.....	493	485	2,729	613
Roofing and sheet metal group.....	5,927	5,591	63,385	16,094
Roofing.....	1,931	1,813	28,311	7,301
Sheet metal.....	2,526	2,376	13,612	3,196
Roofing and sheet metal.....	1,470	1,402	21,462	5,597
Masonry.....	1,288	1,031	10,722	3,167
Ornamental iron.....	158	152	1,385	320
Painting, paperhanging and decorating.....	11,078	10,633	52,456	16,229
Plastering.....	899	888	9,878	3,278
Steel erection.....	118	105	6,384	1,498
Stone setting.....	76	63	1,109	338
Tile and mantel.....	891	727	14,136	3,908
Wrecking and demolition.....	129	128	2,644	1,025
Other.....	909	799	22,221	6,267

¹ Includes operative builders.

Source: Census of Business: 1935—Construction Industry, Vol. I, p. 1.

CONCENTRATION OF ECONOMIC POWER

EXHIBIT No. 874

[Chart based on following statistical data appears in text on p. 5180]

Number of Employers and Employees, Contract Construction Industry, 1938

Kind of Business	Number of employers (Jan.—Mar. 1938)	Number of employees (Mar. 1938)
Total.....	96,773	826,227
General contractors, building.....	22,003	248,063
General contractors, other.....	8,040	219,770
Special trade contractors.....	66,690	350,185
Other contractors, not classified by type ¹	140	8,209

¹ Construction concerns having more than one establishment and engaged in more than one type of construction.

Source: Social Security Board (preliminary data).

EXHIBIT No. 875

[Chart based on following statistical data appears in text on p. 5182]

Distribution of Employers and Employees, by Size of Business Concern, Contract Construction Industry, March 1938

Size of Concern (Number of employees ¹)	Employers percent of total	Employees ¹ percent of total	Size of Concern (Number of employees ¹)	Employers percent of total	Employees ¹ percent of total
Total.....	100.00	100.00	50-59.....	.51	3.11
1.....	21.77	2.44	60-69.....	.35	2.53
2.....	18.11	4.05	70-79.....	.26	2.17
3.....	13.48	4.54	80-89.....	.18	1.71
4.....	9.39	4.21	90-99.....	.16	1.65
5.....	6.85	3.83	100-199.....	.65	9.85
6.....	4.91	3.30	200-299.....	.17	4.77
7.....	3.90	3.06	300-399.....	.08	3.16
8.....	2.57	2.30	400-499.....	.03	1.65
9.....	2.08	2.09	500-599.....	.03	1.86
10-19.....	9.31	13.95	600-699.....	.02	1.27
20-29.....	2.98	7.94	700-799.....	.01	.83
30-39.....	1.39	5.25	800-899.....	.01	.67
40-49.....	.78	3.87	900-999.....	.00	.35
			1000 and over.....	.02	3.59

¹ Number of employees employed during the last pay-period in March 1938.

Source: Social Security Board (preliminary data).

EXHIBIT No. 876

Distribution of Construction Corporations by Total Assets, 1936¹

Total assets (thousand dollars)	Number of corporations	Total assets (thousand dollars)	Number of corporations
Under 50.....	9,941	5,000-10,000.....	20
50-100.....	1,975	10,000-50,000.....	10
100-250.....	1,561	50,000-100,000.....	1
250-500.....	578		
500-1,000.....	300	Total.....	14,574
1,000-5,000.....	188		

¹ Includes about 200 corporations engaged primarily in shipbuilding and ship repairing; these corporations are larger, on the average, than those engaged in construction. Includes only corporations submitting balance sheets with their income tax returns; excludes 2,071 active corporations not submitting such balance sheets. Total assets are as of December 31, 1936 or close of fiscal year nearest thereto.

Source: Statistics of Income for 1936, Part 2, pp. 114-115.

EXHIBIT No. 877

[Chart based on following statistical data appears in text on p. 5185]

Average Inventory Value of Equipment Per Employee in the Contract Construction Industry, 1929¹

BUILDING CONTRACTORS		Value of equipment per employee (Dollars)
Operative builders.....		68
General Contractors:		
Non-specialized.....		229
Commercial only.....		211
Manufacturing only.....		115
Residential only.....		175
Subcontractors:		
Carpentering and wood flooring.....		341
Concreting.....		358
Electrical.....		209
Elevator construction.....		285
Heating and plumbing.....		254
Masonry.....		169
Painting and decorating.....		161
Glass and glazing.....		509
Plastering and lathing.....		126
Roofing and sheet metal work.....		347
Steel erection.....		788
Stonework.....		861
Marble and tiling.....		315
Wrecking.....		579
Excavating.....	1,491	
Ornamental iron.....		722
HIGHWAY CONTRACTORS		
General contractors:		
Highway.....	1,091	
Bridge and culvert.....	750	
Grading.....	1,473	
Street paving.....	1,005	
Subcontractors:		
Highway.....	1,098	
Bridge and culvert.....	747	
Grading.....	1,263	
Street paving.....	742	
HEAVY CONSTRUCTION CONTRACTORS		
General contractors:		
Sewer, gas, water conduit.....	807	
Dam, reservoir and waterworks.....	862	
Dredging, river, harbor.....	2,655	
Levee.....	3,263	
Railroad.....	621	
Foundation.....	729	
Power plant.....	191	
Air transport work.....	790	
Oil and natural gas pipe line.....	321	
Subway.....	464	
Miscellaneous.....	765	
Subcontractors:		
Dam, reservoir and waterworks.....	1,029	
Dredging, river, harbor.....	1,569	
Foundation.....	431	
Miscellaneous.....	454	

¹ Computed by dividing the inventory value of equipment as of January 1, 1930 (as reported for 26,718 establishments) by the estimated average number of wage earners employed during the year by the same establishments.

EXHIBIT No. 878

[Chart based on following statistical data appears in text on p. 5187]

Percent of Value of Work Performed in Home City, in Home State Outside of Home City, and Outside Home State, Contract Construction Industry, 1935

Kind of Business	Total	Percent of value of work performed		
		In home city	In home State outside home city	Outside home State
General Contractors:				
Building.....	100.0	66.1	21.4	12.5
Heavy construction.....	100.0	35.1	28.5	35.4
Highway.....	100.0	21.9	58.8	19.3
Special Trade Contractors:				
Carpentering.....	100.0	90.2	8.3	1.5
Painting, paperbanging and decorating.....	100.0	90.0	6.5	3.5
Roofing and sheet metal.....	100.0	84.0	13.8	2.2
Heating and plumbing.....	100.0	83.1	13.1	3.8
Masonry.....	100.0	81.5	8.3	10.2
Plastering.....	100.0	81.2	12.9	5.9
Concreting.....	100.0	79.1	15.6	5.3
Electrical.....	100.0	75.0	15.1	9.9
Tile and mantel.....	100.0	74.2	18.6	7.2
Stone setting.....	100.0	68.8	3.6	27.6
Steel erection.....	100.0	67.3	12.8	19.9
Excavating and/or foundation.....	100.0	60.6	32.8	6.6
All other.....	100.0	44.8	46.5	8.7

Source: Census of Business, 1935—Construction Industry, Vol. II, p. 106.

EXHIBIT No. 879

Retail Dealers in Lumber, Building Materials and Hardware—Number of Stores, Amount of Sales, and Number of Stores by Size of Store, by Kind of Business, 1935

Kind of business	All stores		Number of stores with annual sales of ¹							
	Number of Stores ¹	Amount of Sales (Millions)	\$300,000 and over	\$100,000 to \$299,999	\$50,000 to \$99,999	\$30,000 to \$49,999	\$20,000 to \$29,999	\$10,000 to \$19,999	\$5,000 to \$9,999	Less than \$5,000
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Total for all lumber building material and hardware dealers.....	73, 186	\$1, 864	275	2, 654	5, 986	9, 332	8, 765	16, 076	12, 464	17, 710
Lumber and bldg. material dealers.....	21, 149	867	172	1, 603	3, 261	4, 096	3, 205	4, 100	2, 111	2, 615
Hardware stores.....	26, 996	467	49	393	1, 041	2, 462	2, 786	6, 873	5, 857	7, 585
Hardware & farm implement dealers.....	9, 637	292	41	419	1, 073	1, 584	1, 422	2, 181	1, 378	1, 551
Heating & plumbing equipment dealers.....	5, 025	89	8	94	217	438	551	928	1, 154	1, 635
Paint, glass, wallpaper stores.....	8, 910	127	5	109	336	668	702	1, 738	1, 698	3, 664
Electrical supply stores.....	1, 469	22	---	36	58	84	99	256	266	670

¹ Includes stores operated by chains, as follows: Lumber and building-material, 5,757 stores (operated by 478 chains); Hardware, 443 stores (operated by 55 chains); Hardware and farm implements, 183 stores (operated by 13 chains); Heating and plumbing equipment, 434 stores (operated by 10 chains); Paint, glass, and wallpaper, 820 stores (operated by 65 chains); Electrical supply, 12 stores (number of chains not available).

² The total of the figures in columns (4) to (11) exceeds the corresponding figure in column (2). For all lumber, building material and hardware dealers, the difference is 76 stores. This difference is the result of counting some stores twice in the figures on number of stores by size, a procedure necessary to avoid disclosure of confidential information.

Source: Census of Business, 1935—Retail Distribution; Vol. I, p. 2-04 and Vol. VI, pp. 155 and 157, and Retail Chains, p. 36.

EXHIBIT No. 880

Wholesale Distributors of Construction Materials—Number of Establishments and Amount of Sales by Type of Operation, for Selected Kinds of Business, 1935

Type of Operation—Kind of Business	Number of establishments	Amount of sales (millions)
Full-Service and Limited-Function Wholesalers:		
Total for all kinds of business shown	8, 148	\$1, 566
Paints and varnishes	772	66
Electrical construction materials ¹	1, 153	261
Hardware	1, 129	428
Builders' supplies (full line)	504	76
Lumber and millwork	1, 597	339
Other construction materials ²	716	77
Structural iron and steel	93	19
Sheet metal products	179	40
Wall paper	262	17
Plumbing and heating equipment and supplies	1, 743	243
Wholesale Merchants and Industrial Distributors Combined:		
Total for all kinds of business shown	7, 508	1, 393
Paints and varnishes	766	65
Electrical construction materials ¹	1, 144	259
Hardware	1, 099	417
Builders' supplies (full line)	503	74
Lumber and millwork	1, 082	190
Other construction materials ²	678	74
Structural iron and steel	92	19
Sheet metal products	177	39
Wall paper	255	16
Plumbing and heating equipment and supplies	1, 712	240
Other Full-Service and Limited-Function Wholesalers:		
Total for all kinds of business shown	640	173
Paints and varnishes	6	1
Electrical construction materials ¹	9	2
Hardware	30	11
Builders' supplies (full line)	1	2
Lumber and millwork	515	149
Other construction materials ²	38	3
Structural iron and steel	1	(³)
Sheet metal products	2	1
Wall paper	7	1
Plumbing and heating equipment and supplies	31	3
Manufacturers' Sales Branches (with stocks):		
Total for all kinds of business shown	1, 021	442
Paints and varnishes	265	168
Hardware	62	18
Builders' supplies (full line)	45	33
Lumber and millwork	38	13
Other construction materials ²	178	67
Structural iron and steel	43	22
Sheet metal products	23	19
Plumbing and heating equipment and supplies	367	102
Manufacturers' Sales Offices (without stocks):		
Total for all kinds of business shown	486	202
Hardware	31	10
Lumber and construction materials	277	169
Plumbing and heating equipment and supplies	178	23
Agents and Brokers:		
Total for all kinds of business shown	1, 893	234
Paints and varnishes	70	6
Electrical construction materials ¹	240	22
Hardware	258	32
Builders' supplies (full line)	197	9
Lumber and millwork	377	100
Other construction materials ²	220	30
Structural iron and steel	42	6
Sheet metal products	27	3
Wall paper	5	(³)
Plumbing and heating equipment and supplies	427	26

¹ Electrical merchandise, (full line) *plus* wiring supplies and construction materials.

² Brick, tile and terra cotta *plus* cement, lime and plaster, *plus* glass, *plus* sand, gravel, and crushed stone, *plus* all other.

³ Less than .5 million.

EXHIBIT No. 881

Wholesale Merchants and Industrial Distributors of Construction Materials—Number of Establishments; Amount of Sales; and Number of Establishments by Size, for Selected Kinds of Business, 1935

Kind of business	All establish- ments		Number of establishments with annual sales of—								
	Number of estab- lishments	Amount of sales (millions)	\$2,000,000 and over	\$1,000,000 to \$1,999,999	\$500,000 to \$999,999	\$300,000 to \$499,999	\$200,000 to \$299,999	\$100,000 to \$199,999	\$50,000 to \$99,999	\$10,000 to \$49,999	Under \$10,000
Total for all wholesale merchants and industrial distributors combined.....	7,508	\$1,393	55	132	385	569	665	1,379	1,451	2,244	628
Paints and Varnishes.....	766	65	---	5	11	26	30	108	144	349	93
Electrical Construction Ma- terials ¹	1,144	259	8	37	79	128	111	212	211	285	73
Hardware.....	1,099	417	35	50	112	120	137	166	162	243	74
Builders' Supplies (full line).....	503	74	2	4	12	35	52	107	113	152	26
Lumber and Millwork.....	1,082	190	5	20	53	81	105	242	213	288	75
Other construction Ma- terials ²	678	74	1	5	16	24	34	112	144	252	90
Structural Iron and Steel.....	92	19	---	---	10	12	14	17	11	25	3
Sheet Metal Products.....	177	39	1	4	17	18	20	31	33	40	13
Wallpaper.....	255	16	---	---	1	7	4	32	59	125	27
Plumbing and heating Equipment and Supplies.....	1,712	240	3	7	74	118	158	352	361	485	154

¹ Electrical merchandise (full line) *plus* wiring supplies and construction materials.

² Brick, tile and terra cotta *plus* cement, lime, and plaster, *plus* glass, *plus* sand, gravel, and crushed stone, *plus* all other.

Source: Census of Business, 1935: Wholesale Distribution, Vol. VI, Table 4.

EXHIBIT No. 882

[Chart based on following statistical data appears in text on p. 5191]

Sales Distribution of Full Service and Limited-Function Wholesalers in Selected Kinds of Business, 1935

Kind of business	Number of establishments	Amount of sales (millions)	Percent of sales to—			
			All customers	Contractors and industrial and household consumers	Retailers	Wholesalers and for export
Structural iron and steel.....	93	\$19	100.0	85.5	7.5	7.0
Sheet-metal products.....	179	40	100.0	52.5	25.7	21.8
Electrical construction materials.....	1,153	261	100.0	46.3	49.5	4.2
Builders' supplies (full line).....	504	76	100.0	44.6	50.1	5.3
Paints and varnishes.....	772	66	100.0	38.6	49.2	12.2
Lumber and millwork.....	1,597	339	100.0	36.1	50.7	13.2
Plumbing and heating equipment and supplies.....	1,743	243	100.0	34.7	56.9	8.4
Wallpaper.....	262	17	100.0	32.0	65.2	2.8
Hardware.....	1,129	428	100.0	25.4	71.2	3.4
Other construction materials ²	716	77	100.0	60.2	32.9	6.9

¹ Electrical merchandise (full line) *plus* wiring supplies and construction materials.

² Brick, tile, and terra cotta, *plus* cement, lime, and plaster, *plus* glass, *plus* sand, gravel, and crushed stone, *plus* all other.

Source: Census of Business, 1935: Wholesale Distribution, Vol. I, table 7, pp. 104-118.

EXHIBIT No. 883

[Chart based on following statistical data appears in text on p. 5192]

Sales Distribution of Manufacturers' Wholesale Branches in Selected Kinds of Business, 1935

Kind of business	Number of establishments	Amount of sales (millions)	Percent of sales to—			
			All customers	Contractors, and industrial and household consumers	Retailers	Wholesalers and for export
MANUFACTURERS' SALES BRANCHES (WITH STOCKS)						
Structural iron and steel.....	43	\$22	100.0	90.8	4.2	5.0
Paints and varnishes.....	265	168	100.0	52.6	33.2	14.2
Plumbing and heating equipment and supplies.....	367	102	100.0	35.0	33.4	31.6
Sheet metal products.....	23	19	100.0	33.4	37.1	29.5
Lumber and millwork.....	38	13	100.0	18.4	72.6	9.0
Builders' supplies (full line).....	45	33	100.0	12.3	28.2	59.5
Hardware.....	62	18	100.0	7.9	30.2	61.9
Other construction materials ¹	178	67	100.0	39.7	52.5	7.8
MANUFACTURERS' SALES OFFICES (WITHOUT STOCKS)						
Plumbing and heating equipment and supplies.....	178	23	100.0	53.4	9.5	37.1
Hardware.....	31	10	100.0	24.1	42.3	33.6
Lumber and construction materials.....	277	169	100.0	19.8	68.0	12.2

¹ Brick, tile, and terra cotta, *plus* cement, lime and plaster, *plus* glass, *plus* sand, gravel, and crushed stone, *plus* all other.

Source: Census of Business, 1935: Wholesale Distribution, Vol. I, table 7, pp. 104-118.

EXHIBIT No. 884

[Chart based on following statistical data appears in text on p. 5194]

Sales distribution of manufacturers in selected industries—1935¹

Industry	Total distributed sales (millions)	Percent of sales to—				
		All customers	Contractors and industrial and household consumers	Retailers	Own whole-sale branches	Wholesalers and jobbers
Structural and ornamental metal work.....	\$173	100.0	82.8	1.9	12.1	3.2
Concrete products.....	47	100.0	76.4	10.3	2.6	10.7
Clay products (other than pottery) and nonclay refractories.....	102	100.0	57.0	11.0	9.4	22.6
Sheet metal work.....	114	100.0	51.8	17.2	11.5	19.5
Planing mill products.....	205	100.0	51.1	21.6	3.9	23.4
Lumber and timber products.....	485	100.0	36.6	13.2	8.5	41.7
Paints, pigments, varnishes.....	393	100.0	34.1	18.2	35.0	12.7
Cement.....	115	100.0	25.5	25.7	23.9	24.9
Steam and hot water heating apparatus.....	111	100.0	24.6	5.1	34.6	35.7
Stoves, ranges, and furnaces.....	177	100.0	15.1	48.5	11.8	24.6
Plumbers' supplies, including plumbing fixtures ²	80	100.0	12.1	8.4	14.6	64.9
Roofing.....	77	100.0	9.2	7.4	50.0	33.4
Wallpaper.....	18	100.0	-----	33.6	-----	66.4

¹ Excludes interplant transfers and direct export sales; also excludes sales not reported by type of customer.² Excludes pipe.

Source: Census of Business, 1935: Distribution of Manufacturers' Sales.

EXHIBIT No. 885

Estimates of Freight Revenue and Value of Commodities Transported Class I Steam Railways, 1936. Carload Traffic

[Interstate Commerce Commission Statement No. 3747, October 1937]

Commodity Group or Class	Revenue freight origi- nated (Thous- ands of tons)	Percent freight rev- enue of value at destination
Gravel and sand (other than glass or welding).....	40, 213	56. 73
Lumber, shingles and lath.....	19, 999	21. 08
Cast iron pipe and fittings.....	842	13. 30
Iron & steel pipe and fittings N. O. S.....	3, 815	7. 65
Iron & steel; Nails and wire, not woven.....	1, 583	10. 56
Cement, natural or Portland.....	17, 236	23. 96
Brick, common.....	2, 106	28. 49
Brick, N. O. S. and building tile.....	4, 978	16. 67
Lime, common (quick or slaked).....	2, 169	27. 73
Plaster (stucco or wall) and dry kalsomine.....	955	33. 37
Paints in oil and varnishes.....	295	4. 19
Building paper and prepared roofing materials.....	1, 965	10. 81
Glass, flat, other than plate.....	476	8. 16
Grand Total, all commodities.....	942, 538	8. 47

"EXHIBIT No. 886", appears in text on p. 5197

"EXHIBIT No. 887", appears in text on p. 5198

"EXHIBIT No. 888", appears in text on p. 5199

"EXHIBIT No. 889", appears in text on p. 5200

"EXHIBIT No. 890", appears in text on p. 5201

"EXHIBIT No. 891", appears in text on p. 5202

"EXHIBIT No. 892", appears in text on p. 5205

"EXHIBIT No. 893", appears in text on p. 5206

EXHIBIT No. 894

[Charts based on following statistical data, "Exhibits Nos. 892 and 893", appear in text on pp. 5205 and 5206,

Selected industries producing construction materials, 1937

[Data are for Industries as classified by the Bureau of the Census except when two or more products have been selected within an industry where the remaining products were not used primarily by the Construction industry]

Building material group and Census industry	Value of product in thousands of dollars		Percent of total value of product contributed by four leading companies, 1935
	1937	1935	
Lumber and millwork:			
Lumber ¹	610,000	(?)	4.5
Planing mill.....	312,552	196,272	4.6
Steel:			
Structural and ornamental metalwork.....	292,756	160,762	24.3
Steel works and rolling mill products:			
Structural shapes heavy and light.....	148,630	67,308	49.3
Sheet metal.....	159,096	109,333	49.3
Rails and joints.....	78,722	39,112	49.3
Heating, cooling and cooking apparatus:			
Heating and cooking equipment:			
Other than electric ²	182,153	122,836	38.0
Electric ³	270,431	174,393	38.0
Air conditioning.....	60,548	(?)	46.1
Fans.....	2,770	(?)	46.1
Stokers.....	21,624	9,155	6.9
Paints and varnishes.....	538,461	417,000	32.2
Plumbing:			
Plumbers' supplies.....	113,920	75,631	34.3
Wrought pipe.....	113,769	73,849	47.0
Cast iron pipe.....	61,118	37,870	37.6
Cement, tile and brick:			
Cement.....	183,201	120,417	29.2
Clay.....	163,261	111,197	19.2
Concrete.....	76,174	44,967	8.1
Lime.....	35,022	23,322	21.6
Sand Lime Brick.....	1,618	654	63.1
Electrical equipment:			
Lighting equipment ⁴	37,678	(?)	22.7
Electric wire cable ⁵	131,627	(?)	44.4
Plaster, wallboard, etc.:			
Gypsum.....	42,616	26,300	75.3
Wallboard.....	41,049	23,848	54.0
Building paper.....	32,630	19,450	13.8
Roofing.....	102,562	16,172	42.8
Glass, flat.....	100,938	68,266	44.9
Marble, granite, slate.....	79,005	56,477	7.1
Asbestos.....	63,794	62,421	63.1
Builders' hardware.....	53,067	28,848	36.3
Metal doors and shutters.....	49,914	22,740	29.5
Window shades.....	23,574	20,324	24.0
Window screens.....	14,748	8,668	22.6
Asphalted felt base floor covering and linoleum.....	33,548	52,398	81.6
Elevators.....	21,235	9,110	44.4

¹ Estimate based on study of the National Lumber Manufacturers' Association, "Lumber Industry Facts, 1939, Table 50, p. 36."² Data comparable to those for 1937 are not available.³ Excludes equipment designed for industrial purposes.⁴ Includes water heaters, storage water heaters, household and hotel ranges, and refrigerators.⁵ Excludes desk lamps, automobile and locomotive lights and similar apparatus.⁶ Includes conduits, headed wire and wiring lines.

EXHIBIT No. 895

Building materials mined, 1935 and 1937

	Value of Product sold or used by producers in U. S. ¹ (Thousands of dollars) 1937	Production of all companies in U. S. ¹ (Thousands of dollars) 1935	Relative Production of four leading companies ² (Percent) 1935
Limestone.....	90,902	⁴ 55,544	11
Sand and Gravel.....	97,473	⁵ 53,701	10
Gypsum.....	36,543	18,860	80
Granite.....	20,193	⁶ 13,491	18
Sandstone.....	7,516	⁷ 4,365	33
Marble.....	5,456	⁸ 2,169	84
Asphalt.....	3,019	2,149	63

¹ Minerals Year Book.² Special tabulations, Bureau of Mines.³ The four leading companies have been selected on the basis of value of product.⁴ Minerals Year Book figure, \$50,669,000.⁵ Minerals Year Book figure, \$61,977,000.⁶ Minerals Year Book figure, \$13,507,000.⁷ Minerals Year Book figure, \$4,568,000.⁸ Minerals Year Book figure, \$3,416,000.

EXHIBIT No. 896

GENERAL EXPLANATIONS

The following tables present data from the Census of Manufactures for the year 1937, on individual products in the most important building material industries. The figures cover (1) the total value of each listed product manufactured by all companies in the United States engaged in making that specific product; (2) the proportion (percent) which the total value of the specific product represents of the total value of all products for the industry in which the specific product is classified; (3) the total value of each specific product manufactured by the four leading companies; (4) the proportion (percent) of the total value of each specific product manufactured by the four leading producers of that product; (5) total number of companies manufacturing that specific product. While the industries analyzed are outstanding in the manufacture of materials used in the Construction industry, it should be noted that in many cases the product is used for both a building material and other purposes. Estimates based on Census data of the proportions sold for other purposes are not available.

The Census of Manufactures for 1937 was the ninth of a series taken at two-year intervals beginning at 1921, under authority contained in section 32 of the Fourteenth Census Act, and later in section 17 of the Fifteenth Census Act. The Census of Manufactures was taken decennially to and including the census of 1899 and quinquennially from 1904 to 1919 inclusive.

There follow explanations of terms and classifications used by the Bureau of the Census.

1. *Area and period covered.*—The canvass covered the 48 States and the District of Columbia. The returns represent a year's operations, except for establishments that began or discontinued business within the year. In general, they relate to the calendar year 1937, but in some cases they cover fiscal years differing from the calendar year.

2. *The canvass.*—The questionnaires were mailed to manufacturers and printers and publishers late in January 1938. The respondents were requested to fill out the questionnaires and to mail them to the Bureau of the Census as soon as possible. A small field force was employed from March until July 1938, to assist in obtaining schedules from respondents.

3. *Establishments covered.—Type.*—The Census is confined, in general, to manufacturing industries proper. Data are collected for a few industries, however, whose activities are not manufacturing in the sense in which the term is generally understood, the most important example being printing and publishing. The following classes of establishments are omitted: (a) Those that were idle throughout the year or reported products valued at less than \$5,000 (see sec. 4, below); (b) those

engaged principally in the performance of work for individual customers, such as repair shops, custom tailor shops, and dressmaking and millinery shops (but this does not apply to large establishments manufacturing to fill special orders); (c) those engaged in the construction industries; (d) those engaged in the so-called neighborhood industries and hand trades, in which little or no power machinery is used, such as carpentry, blacksmithing, harness-making, tinsmithing, etc.; (e) cotton ginneries; (f) small grain mills (grist-mills) engaged exclusively in custom grinding; (g) wholesale and retail stores that incidentally manufacture on a small scale; (h) educational, eleemosynary, and penal institutions engaged in manufacturing. (Data for the production of binder twine in penal institutions and of brooms in institutions for the blind are, however, collected.) In addition, establishments engaged in the manufacturing of gas and railroad repair shops were not covered in 1937, although they were covered in prior censuses.

4. *Establishments covered—Minimum size limit.*—No data are collected from establishments or plants with products valued at less than \$5,000. The exclusion of data for these very small establishments reduces considerably the number to be canvassed, but does not materially impair the accuracy of the statistics except for the single item "Number of establishments." (At the census for 1919, at which the minimum limit was \$500, 99.5 percent of the total wage earners and 99.7 percent of the total value of products were reported by establishments whose production was valued at \$5,000 or more.)

5. *Definition of establishment.*—As a rule, the term "establishment" signifies a single plant or factory. In previous censuses one report was counted as one establishment, but in 1937 one report might be counted as one, two, or more establishments, depending on the answer given by the respondent to the question "How many plants does this report cover?" The respondent's answer to this question was taken as the number of establishments. The number of establishments for all industries for the United States was increased approximately 2,000 by this change in definition of establishments. The change does not materially affect the number of establishments in any particular industry.

6. *Definition of company.*—The reports of all establishments under a common ownership were combined and treated as those of a single company. This procedure differs from that used by the Bureau of the Census in its published reports, which are on the basis of individual establishments regardless of ownership rather than companies.

7. *Classification by industries.*—Each report for an establishment or plant as a whole (a single report being counted as two or more establishments in a few cases, as explained in paragraph five) is assigned on the basis of its product or group of products of chief value, to some one industry classification.

8. *Value of products.*—The amounts under this heading are the selling values at the factory or plant, of all commodities produced (or, for some industries, receipts for work done) during the census year, whether sold, transferred to other plants, or in stock, and consequently, under normal conditions, the total value of products covers the cost of production (including overhead expenses) and profits. It also covers selling expenses except in cases where separate sales departments are operated, in which cases the values at which the products are turned over to sales departments are reported.

The products made by the establishments in a given industry, on the one hand, usually include minor products different from those covered by the industry designation, and, on the other hand, may not include the entire output of products normally belonging to the industry, because some of this class of commodities may be made as secondary products by establishments classified in other industries. In the case of each industry, the value of the minor or secondary products not normally belonging to it is offset to a greater or lesser extent by that of commodities normally belonging to it but made as secondary products by establishments engaged primarily in other lines of manufacture. In most cases, therefore, the total value of the products of an industry as reported, does not differ greatly from the value of the total output, in all industries, of the classes of products covered by the industry designation.

The value of products is not a satisfactory measure of the importance of a given industry, because only a part of this value is actually created within the industry, another, and often much larger, part being contributed by the value of the materials used. For some purposes the most satisfactory measure is the "value added by manufacture"—that is, the increment in value, as measured by the prices of goods produced and of materials processed. This measures the net addition to the value of commodities, and is almost free from the duplication that is a factor in the total value of products. It is calculated, in the cases of all

industries, by subtracting the cost of materials, supplies, containers, fuel, purchased electric energy, and cost of contract work from the value of products.

The amounts paid as internal-revenue taxes on the products made in certain industries are, in most cases, included in the values of products as reported to the Bureau of the Census, and therefore these have been added to the cost of materials in order to permit the calculation of the value added by manufacture.

9. *Disclosure of data for individual companies or establishments.*—The Bureau of the Census is prohibited by law from publishing any statistics that might disclose data reported by individual establishments. For this reason it is necessary in a few cases to omit entirely certain statistics in the tables presented in this pamphlet.

PLUMBERS' SUPPLIES, 1937

Description of the industry.—This industry embraces establishments whose principal products are enameled-iron (porcelain-enameled) sanitary ware (bathtubs, sinks, lavatories, laundry tubs, etc.), plumbers' brass goods (faucets, spigots, valves, fittings, etc.) range boilers (galvanized-iron and nonferrous), and miscellaneous bathroom and other fixtures used in plumbers' work. Manufacturers of vitreous-china and semivitreous or porcelain (all-clay) sanitary ware are classified in the Pottery industry, and manufacturers of concrete laundry trays in the Concrete Products industry, but production figures for these classes of sanitary ware are included in this table because of the close relation between them and the specific products of the Plumbers' Supplies industry. Faucets, spigots, valves, fittings, etc., are made to a considerable extent by establishments classified in five other industries; namely, (1) Nonferrous-Metal Alloys; Nonferrous-Metal Products, Except Aluminum, Not Elsewhere Classified; (2) Cast-Iron Pipe and Fittings; (3) Machine-shop Products; (4) Machinery Not Elsewhere Classified; (5) Heating and Cooking Apparatus, Except Electric. This table, however, presents production data on faucets, spigots, etc. for only those establishments included in the Plumbers' Supplies industry. The four leading companies have been selected on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Enameled iron sanitary ware:					
Bathtubs:					
Number.....	712, 134		500, 205	71.5	
Value.....	\$15, 731, 811	12.1	\$11, 543, 162	73.4	13
Lavatories:					
Number.....	943, 840		652, 370	69.1	
Value.....	\$6, 065, 179	4.7	\$4, 210, 633	69.4	15
Laundry tubs:					
Number.....	55, 371		45, 093	81.4	
Value.....	\$467, 182	.4	\$375, 885	80.5	13
Sink and laundry tray combinations:					
Number.....	148, 320		119, 416	80.5	
Value.....	\$2, 597, 412	2.0	\$2, 086, 884	80.3	10
Sinks:					
Number.....	1, 057, 647		662, 461	62.6	
Value.....	\$9, 564, 563	7.4	\$6, 076, 127	63.5	13
Flush tanks:					
Number.....	21, 236		18, 991	89.4	
Value.....	\$173, 500	(1)	\$158, 574	91.4	8
Drinking fountains:					
Number.....			3, 712		
Value.....	\$77, 412	(1)	\$70, 696	91.3	7
Tanks and shells for water heaters:					
Number.....	162, 426		66, 796	41.1	
Value.....	\$1, 590, 287	1.2	\$882, 018	55.5	7
Range boilers:					
Galvanized iron, 18-192 gal.:					
Number.....	928, 637		406, 653	43.8	
Value.....	\$5, 952, 728	4.6	\$2, 468, 336	41.5	12
Copper and non-ferrous alloy, 25-180 gal.:					
Number.....	39, 586		23, 720	59.9	
Value.....	\$1, 113, 319	.9	\$644, 268	57.9	14

1 footnotes at end of table

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Vitreous-China plumbing fixtures:					
Bathroom & toilet fixtures:					
Closet bowls:					
Siphon jets:					
Number.....	136, 580		104, 466	76. 5	
Value.....	\$1, 111, 601	0. 9	\$894, 505	80. 5	17
Washdowns:					
Number.....	940, 623		542, 284	57. 7	
Value.....	\$3, 747, 142	2. 9	\$2, 368, 811	63. 2	19
Reverse traps:					
Number.....	310, 995		248, 189	79. 8	
Value.....	\$1, 661, 894	1. 4	\$1, 451, 605	79. 6	14
Flush tanks:					
Lowdown:					
Number.....	1, 182, 489		684, 097	57. 9	
Value.....	\$5, 259, 228	4. 0	\$3, 226, 356	61. 3	19
Lavatories:					
Number.....	269, 384		222, 614	82. 6	
Value.....	\$3, 128, 462	2. 4	\$2, 756, 391	88. 1	17
Stalls:					
Number.....	31, 346		27, 000	86. 1	
Value.....	\$890, 070	. 7	\$769, 840	86. 5	10
Other bathroom and toilet fixtures:					
Number.....			916, 952		
Value.....	\$3, 049, 307	2. 3	\$2, 160, 832	70. 9	21
Other vitreous-China fixtures:					
Number.....			278, 973		
Value.....	\$902, 651	7	\$726, 801	80. 5	11
Semi-vitreous or porcelain plumbing fixtures:					
Number.....			427, 697		
Value.....	\$675, 011	. 5	\$558, 191	82. 7	8
Faucets and spigots: Value.....	\$8, 949, 687	6. 9	\$2, 809, 045	31. 4	41
Other plumbers' brass goods: Value.....	\$40, 182, 498	30. 9	\$13, 861, 185	34. 5	123
Other plumbers' supplies: Value.....	\$9, 210, 300	7. 1	(¹)	(¹)	
Toilet seats:					
Wood:					
Number.....	1, 758, 420		710, 022	40. 4	
Value.....	\$2, 990, 377	2. 3	\$1, 374, 406	46. 0	21
Other:					
Number.....	966, 315		(²)	(³)	
Value.....	\$2, 727, 573	2. 1	(²)	(³)	
Sinks other than enameled-iron: Value.....	\$866, 556	. 7	(²)	(³)	
Drinking fountains other than enameled-iron and vitreous china:					
Number.....	36, 112		(³)	(³)	
Value.....	\$348, 251	. 3	(³)	(³)	
Concrete laundry trays:					
Number.....	29, 314		10, 923	37. 3	
Value.....	\$682, 731	. 5	\$261, 841	38. 4	32
U. S. total.....	\$ 129, 916, 732				

¹ Less than .05 percent.² Not analyzed because of diversity of products.³ Withheld to avoid approximate disclosure of individual operations.⁴ Includes plumbers' supplies manufactured by establishments classified by the Bureau of the Census in other industries.

Source: Census of Manufactures, 1937.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of products	Percent of total
Under 10 percent.....			
10.0 to 19.9 percent.....	6	\$59,871,340	51.3
20.0 to 29.9 percent.....	5	16,479,654	14.1
30.0 to 39.9 percent.....	6	33,814,538	28.9
40.0 to 49.9 percent.....	4	6,598,500	5.7
50.0 to 59.9 percent.....	2	(1)	(1)
Total.....	23	\$116,764,052	100.0
Products not analyzed.....	4	13,152,680	
U. S. total.....	27	\$129,916,732	

¹ Included in 40.0 to 49.9 percent group to avoid disclosing operations of individual companies.

² Includes plumbers' supplies manufactured by establishments classified by the Bureau of the Census in other industries.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Plumbers' Supplies, 1937*

Number of appearances	Number of companies	Number of appearances	Number of companies
1	28	4	1
2	4	14	2
3	2	18	1

ROOFING, BUILT-UP AND ROLL; ASPHALT SHINGLES, ETC. 1937

Description of the industry.—This industry embraces establishments engaged wholly or chiefly in the manufacture of asphalt and other saturated felts, in rolls or in shingle form, either smooth or faced with grit, for roofing purposes, and of roofing cements and coatings (except paint). Asphalt brick siding is also made by some of the establishments. This industry does not include the production of asbestos shingles and flexible roofing, which are classified by the Bureau of the Census in the Asbestos Products industry. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Asphalt smooth-roll roofing:					
Roofing square.....	17,378,058		5,838,799	33.6	
Value.....	\$17,495,534	16.0	\$5,833,705	33.3	30
Asphalt grit-roll roofing:					
Roofing square.....	8,176,525		3,146,925	38.5	
Value.....	\$11,800,692	10.8	\$4,239,064	35.9	26
Asphalt strip shingles—hexagon, etc., including patented:					
Roofing square.....	7,454,467		2,798,454	37.5	
Value.....	\$28,569,887	20.2	\$11,889,573	41.6	25
Asphalt individual—shingles (all kinds):					
Roofing square.....	1,639,180		714,505	43.6	
Value.....	\$6,420,432	5.9	\$2,997,235	46.6	23
Asphalt-saturated felt:					
Tons.....	333,866		100,155	30.0	
Value.....	\$9,671,765	8.9	\$4,591,266	47.4	27

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Tar-saturated felt:					
Tons.....	71,721		36,046	50.2	
Value.....	\$2,880,220	2.6	\$1,884,535	65.4	20 ¹
Waterproofing fabrics: Value.....	\$483,573	.4	\$332,113	68.7	11
Asphalt roof cement (solid):					
Tons.....	133,101		117,710	88.4	
Value.....	\$2,237,140	2.1	\$1,869,804	83.5	19
Coal-tar roofing pitch:					
Tons.....	128,580		(¹)		
Value.....	\$1,651,445	1.5	(¹)		
Fibrous plastic roof cement:					
Pounds.....	55,790,089		29,239,460	52.4	
Value.....	\$1,728,092	1.6	\$827,752	47.8	49
Fibrous liquid roof coating:					
Gallon.....	8,128,315		2,148,850	26.4	
Value.....	\$2,345,821	2.2	\$712,799	30.3	58
Nonfibrous liquid roof coating:					
Gallon.....	8,169,849		4,514,744	55.3	
Value.....	\$2,200,695	2.0	\$1,471,710	66.8	51
Asphalt brick siding: Value.....	\$1,933,369	1.8	\$1,108,985	57.3	15
Other roofing products: Value ²	\$19,652,453	18.0	(²)		
U. S. Industry total ³	109,071,118	100.0			

¹ Withheld to avoid approximate disclosure of individual operations.² Not analyzed because of diversity of products.³ Includes roofing products manufactured by establishments classified by the Bureau of the Census in other industries.

Source: Census of Manufactures, 1937.

TABLE 2.—*Distribution of Total Value of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of products	Percent of total
Under 10 percent.....	1	(¹)	
10.0 to 19.9 percent.....	8	² \$80,449,165	91.7
20.0 to 29.9 percent.....			
30.0 to 39.9 percent.....	1	(¹)	
40.0 to 49.9 percent.....	3	³ \$8,969,500	8.3
Total.....	13	\$89,418,665	100.0
Products not analyzed, value.....	2	\$20,662,453	
U. S. Industry Total ⁴	15	\$109,081,118	

¹ Combined to avoid disclosing exactly or approximately the operations of individual establishments.² Includes value of products of one company classified in "Under 10 percent" group.³ Includes value of products of one company classified in "30.0 to 39.9 percent" group and one company in the "80.0 to 89.9 percent" group.⁴ Includes roofing products manufactured by establishments classified by the Bureau of the Census in other industries.TABLE 3.—*Frequency of Appearance of Same Companies Among the Leading Four Producers in Roofing, Built-up and Roll; Asphalt Shingles, etc., Products, 1937*

Number of companies	Number of appearances	Number of companies	Number of appearances
8	1	2	6
3	2	1	7
1	3	1	8
1	4		

ASPHALTED-FELT-BASE FLOOR COVERING

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of a product that resembles linoleum, made by printing or painting on the surface of a foundation of asphalted felt. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and Value in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Asphalted felt base floor covering:					
Piece goods:					
12/4 and wider:					
Sq. yards.....	27,486,619	17.6	17,461,119	63.5	
Value.....	\$5,924,199	16.7	\$3,939,521	66.5	11
8/4:					
Sq. yards.....	46,548,979	29.8	33,108,423	71.1	
Value.....	\$10,148,730	28.6	\$7,022,075	69.2	10
Narrower than 8/4:					
Sq. yards.....	5,197,483	3.3	4,204,199	80.9	
Value.....	\$1,073,140	3.0	\$849,371	79.1	8
Rugs:					
Sq. yards.....	76,847,442	49.3	54,128,085	70.4	
Value.....	\$18,334,654	51.7	\$13,466,843	73.5	9
Total asphalted felt base floor covering:					
Sq. yards.....	156,080,523	100.0			
Value.....	\$35,480,723	100.0			

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. Total	Number of products	Value of products	Percent of total
Under 10 percent.....			
10.0 to 19.9 percent.....			
20.0 to 29.9 percent ¹	1		
30.0 to 39.9 percent.....	3	\$35,480,723	100.0
Total.....	4	\$35,480,723	100.0
Products not analyzed.....	0	0	0
U. S. Total.....	4	\$35,480,723	100.0

¹ Combined with 30.0 to 39.9 percent group.

² Includes value of product classified in 20.0 to 29.9 percent group.

TABLE 3.—*Frequency of Appearance of same Companies Among Leading Four Producers in Asphalted Felt Base Floor Covering Products, 1937*

Number of appearances	Number of companies	Number of appearances	Number of companies
1	1	3	1
2	2	4	2

GYPSUM PRODUCTS; WALLBOARD AND PLASTER (EXCEPT GYPSUM) BUILDING INSULATION, AND FLOOR COMPOSITION, 1937

Description of the industry.—This report covers two industries, namely, (1) Gypsum Products, and (2) Wallboard and Plaster (Except Gypsum), Building Insulation, and Floor Composition. The first named industry embraces establishments engaged primarily in the manufacture of products composed wholly or chiefly of gypsum. The principal products of the second are (a) wall and insulating boards other than gypsum, (b) mineral wool and other nonrigid thermal insulation, and (c) floor composition. Establishments engaged in mixing lime and other materials for sale as premixed plaster are classified in the second industry, but the classification does not cover lime kilns producing lime for sale as such. Establishments manufacturing wallboard or insulating board on paper machines without further processing it are classified in the Paper industry, but production data for these products are included here. Some of the material designated as "wallboard" is used for purposes other than as a substitute for lath and plaster. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Gypsum plasters:					
Calcined plaster (retarded and unretarded):					
Tons.....	269,389	-----	165,485	61.4	-----
Value.....	\$2,516,781	3.1	\$1,824,171	72.4	15
Sanded plasters:					
Tons.....	166,223	-----	118,478	71.3	-----
Value.....	\$1,179,089	1.5	\$818,055	69.4	23
Neat plaster (fibered and unfibered):					
Tons.....	1,191,827	-----	993,776	83.4	-----
Value.....	\$10,759,967	13.4	\$9,111,724	84.7	23
Molding and gauging plaster:					
Tons.....	123,716	-----	113,231	91.5	-----
Value.....	\$1,604,563	2.0	\$1,479,975	92.2	19
Prepared finish plaster:					
Tons.....	32,339	-----	26,425	81.8	-----
Value.....	\$614,441	.8	\$527,150	85.7	18
Industrial (terra-cotta, plate-glass, pottery, casting, dental, etc.):					
Tons.....	120,142	-----	106,289	88.5	-----
Value.....	\$1,313,191	1.6	\$1,212,842	92.3	10
Other gypsum plaster:					
Tons.....	-----	-----	-----	-----	-----
Value.....	\$667,495	.8	\$470,510	70.5	13
Plasters other than gypsum:					
Magnesite stucco and Portland cement stucco:					
Tons.....	20,349	-----	6,248	30.7	-----
Value.....	\$322,439	.4	\$154,898	48.0	31
Other non-gypsum plasters:					
Tons.....	-----	-----	-----	-----	-----
Value.....	\$1,167,767	1.5	\$654,317	56.1	45
Gypsum rock:					
For Portland cement:					
Tons.....	462,389	-----	375,291	81.2	-----
Value.....	\$1,158,161	1.4	\$943,366	81.5	12
Agricultural gypsum:					
Tons.....	36,714	-----	31,008	84.5	-----
Value.....	\$172,779	.2	\$148,309	85.8	13
Other gypsum rock, value.....	\$292,199	.4	(1)	-----	8
Gypsum block and tile:					
Partition and wall tile:					
Tons.....	105,370	-----	87,353	82.9	-----
Value.....	\$833,482	1.0	\$706,768	84.7	13
Roof tile and other gypsum block and tile:					
Tons.....	(1)	-----	(1)	-----	-----
Value.....	(1)	-----	(1)	-----	-----

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Keenes cement:					
Tons.....	36, 080		(1)		
Value.....	\$546, 606	0. 7	(1)		5
Gypsum board:					
Wall board:					
Tons.....	261, 260		242, 631	92. 8	
Equivalent in sq. ft.....	392, 598, 286		362, 075, 068	92. 2	
Value.....	\$8, 362, 128	10. 4	\$7, 809, 601	93. 4	9
Plaster board and lath:					
Tons.....	491, 143		449, 143	91. 4	
Equivalent in sq. ft.....	738, 856, 180		673, 837, 934	91. 2	
Value.....	\$9, 321, 809	11. 6	\$8, 457, 073	90. 7	8
Wall and insulating board and materials other than gypsum:					
Wallboard (fiber board made of wood or other vegetable pulp; laminated lumber with paper liners):					
Sq. ft.....	269, 067, 064		(1)		
Value.....	\$7, 862, 974	9. 7	(1)		6
Insulation:					
Board or rigid form of fiber composition cellular fiber:					
Sq. ft.....	733, 969, 968		642, 502, 222	87. 5	
Value.....	\$20, 235, 601	24. 9	\$17, 611, 067	87. 0	
Rock wool:					
Pounds.....	253, 179, 120		196, 977, 256	77. 8	
Value.....	\$4, 989, 117	6. 0	\$3, 659, 867	73. 3	23
Slag wool:					
Pounds.....	108, 141, 446		96, 030, 428	88. 8	
Value.....	\$2, 474, 295	3. 0	\$2, 261, 991	91. 6	8
Other, value.....	\$815, 962	1. 7			
Floor composition:					
Magnesite:					
Tons.....	5, 378		3, 516	65. 4	
Value.....	\$409, 852	. 5	\$310, 377	75. 7	13
Other floor compositions, value.....	\$99, 589				
Asphalt floor tile:					
Sq. ft.....					
Value.....	\$3, 313, 848	4. 0	(1)		6
U. S. Total Industry *	\$81, 034, 135				

¹ Withheld to avoid disclosure of individual operations.

* Includes gypsum products manufactured by establishments classified by the Bureau of the Census in other industries.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Production, 1937*

% of U. S. total	Number of products	Total value	Percent of total
10.0 to 19.9%	2	(1)	(1)
20.0 to 29.9%			
30.0 to 39.9%	5	\$9, 577, 271	11. 8
40.0 to 49.9%	8	30, 770, 075	38. 0
50.0 to 60%	5	30, 303, 701	37. 4
Over 60%	4	10, 383, 088	12. 8
Total Products.....	24	\$81, 034, 135	100. 0

¹ Included in 30.0 to 39.9 percent group.

TABLE 3.—*Frequency of Appearance of Same Company Among Leading Four Producers, 1937*

Number of appearances among leading four companies	Number of companies	Number of appearances among leading four companies	Number of companies
1	26	5	2
2	7	8	1
3	1	15	1

CLAY PRODUCTS

Description of the industry.—Two industries are included in this grouping, namely, "Clay Products (other than Pottery)" and "Non-Clay Refractories," and "Pottery, including Porcelain Ware." The first embraces establishments engaged primarily in the manufacture of such commodities as brick and tile. The second covers the production of china, stoneware, and earthenware, and of porcelain electrical supplies and vitreous-china and porcelain plumbing fixtures. The four leading companies have been chosen the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Common brick:					
Thousands.....	3,252,633		183,246	5.6	
Value.....	\$34,009,775	13.3	\$2,395,843	7.0	
Face brick:					
Thousands.....	937,599		128,353	13.7	
Value.....	\$14,357,181	5.6	\$2,284,639	15.9	325
Hollow brick:					
Thousands.....	5,327		3,766	70.7	
Value.....	\$49,839	(1)	\$28,677	57.5	20
Salt-glazed brick:					
Thousands.....	51,015		41,662	81.7	
Value.....	\$1,171,693	.4	\$923,198	78.8	12
Other Glazed brick:					
Thousands.....	31,615				
Value.....	\$1,229,066	.5	(2)		11
Terra cotta:					
Short tons.....	28,747		17,975	62.5	
Value.....	\$2,914,801	1.1	\$1,891,001	64.9	15
Hollow building tile:					
Partition, load-bearing, furring, book tile:					
Glazed:					
Short tons.....	186,919		85,119	45.5	
Value.....	\$2,210,055	.9	\$1,581,257	71.5	41
Unglazed:					
Short tons.....	1,353,073		304,432	22.5	
Value.....	\$7,662,279	3.0	\$1,904,296	24.9	241
Conduit:					
Short tons.....	19,110		15,378	80.5	
Value.....	\$269,961	.1	\$249,383	92.4	12
Floor arch, silo, and corn crib tile; radial chimney blocks; fire-proofing tile:					
Short tons.....	94,530		43,880	46.4	
Value.....	\$625,049	.2	\$281,589	45.0	30
Tile (other than hollow and drain):					
Roofing tile:					
Squares (100 sq. ft.).....	228,335		126,204	55.3	
Value.....	\$2,053,863	.8	\$1,507,304	73.4	38

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Floor tile (plain, vitreous, encaustic, quarry, etc.):					
Square feet.....	13, 246, 345		5, 266, 460	39. 8	
Value.....	\$1, 754, 391	0. 7	\$1, 095, 240	62. 5	48
Ceramic mosaic (vitreous, and semi-vitreous, unglazed):					
Square feet.....	11, 733, 877		6, 549, 309	55. 8	
Value.....	\$2, 365, 814	. 9	\$1, 343, 483	56. 8	22
Enameled tile (bright, dull, matt, and semi-matt finishes) and glazed ceramic mosaic:					
Square feet.....	27, 549, 357		13, 618, 992	49. 4	
Value.....	\$8, 470, 479	3. 3	\$4, 083, 874	48. 2	19
Faience tile (inc. hand-decorated tile):					
Square feet.....	1, 632, 523		1, 469, 296	90. 0	
Value.....	\$595, 108	. 2	\$448, 833	75. 4	23
Wall tile (white and bright glazed), including trim:					
Square feet.....	10, 052, 452		5, 672, 354	56. 4	
Value.....	\$2, 689, 227	1. 0	\$1, 446, 711	53. 8	23
Vitrified brick and plates:					
For paving:					
Thousands.....	84, 678		30, 956	36. 6	
Value.....	\$2, 048, 765	. 8	\$909, 307	44. 4	44
Sewer liners:					
Short tons.....	5, 507				
Value.....	\$78, 489	(1)	(2)		6
Drain tile:					
Vitrified (underdrain):					
Short tons.....	211, 950		116, 675	55. 0	
Value.....	\$1, 737, 445	. 7	\$953, 720	54. 9	63
Unvitrified:					
Short tons.....	231, 552		56, 726	24. 5	
Value.....	\$1, 851, 836	. 7	\$459, 807	24. 8	155
Sewer pipe:					
Short tons.....	973, 142		327, 255	33. 6	
Value.....	\$13, 718, 240	5. 4	\$5, 128, 739	37. 4	63
Stove lining:					
Short tons.....	12, 177		8, 763	72. 0	
Value.....	\$310, 350	. 1	\$205, 404	66. 2	17
Flue lining:					
Short tons.....	146, 033		41, 473	28. 4	
Value.....	\$2, 032, 005	. 8	\$670, 814	33. 0	66
Chimney pipe and tops:					
Short tons.....	11, 727		7, 027	59. 9	
Value.....	\$248, 796	. 1	\$170, 423	68. 5	29
Wall coping:					
Short tons.....	21, 019		9, 833	46. 8	
Value.....	\$294, 260	. 1	\$148, 438	50. 4	44
Segment blocks:					
Short tons.....	6, 214				
Value.....	\$59, 832	(1)	(2)		3
Fire-clay products:					
Brick, block, or tile, except high-alumina (9-inch equivalent):					
Thousands.....	700, 947		278, 171	39. 7	
Value.....	\$32, 806, 495	12. 8	\$14, 305, 058	43. 6	119
High-alumina brick (over 40 per cent Al_2O_3):					
Thousands.....	27, 459		11, 445	41. 7	
Value.....	\$2, 133, 675	. 8	\$1, 429, 955	67. 0	25
Special shapes:					
Short tons.....	184, 212		95, 764	52. 0	
Value.....	\$4, 750, 779	1. 9	\$2, 442, 270	51. 4	43
Plastic fire brick:					
Short tons.....	44, 011		36, 482	82. 9	
Value.....	\$1, 281, 753	. 5	\$1, 083, 833	84. 6	32
Ladle brick:					
Thousands.....	67, 401		56, 774	84. 2	
Value.....	\$1, 565, 134	. 6	\$1, 264, 414	80. 8	10
Glass-house tank blocks, melting pots, stoppers, floaters, and rings:					
Short tons.....	39, 392		28, 589	72.	
Value.....	\$3, 310, 077	1. 3	\$2, 619, 960	79. 1	14

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Refractory cement (clay):					
Short tons.....	57, 927		21, 258	36. 7	
Value.....	\$2, 467, 771	1. 0	\$1, 085, 765	44. 0	61
Clay sold, raw or prepared, including fire-clay dust:					
Short tons.....	394, 084	. 2	182, 148	46. 2	
Value.....	\$1, 681, 571	. 7	\$751, 997	44. 7	127
Other clay products, except pottery:	\$4, 203, 042	1. 6	(¹)		
Vitreous-china plumbing fixtures:					
Value.....	\$20, 625, 366	8. 1	(¹)		
Pyrometric cones: Value.....	\$106, 285	(¹)	(²)		4
Red earthenware (flower pots, etc.):					
Value.....	\$1, 959, 880	. 8	\$709, 401	36. 2	72
Stoneware (except chemical) and yellow and Rockingham ware: Value.....	\$1, 889, 049	. 7	\$958, 283	50. 7	43
Chemical stoneware: Value.....	\$876, 636	. 3	(²)		5
White ware, including cream color, white granite, semiporcelain and semivitreous porcelain ware: Value.....	\$25, 711, 410	10. 0	\$10, 844, 703	42. 2	32
Hotel china: Value.....	\$10, 017, 811	3. 9	\$5, 733, 447	57. 2	19
Porcelain electrical supplies:					
Insulators:					
Pin type:					
Below 7,500 volts: Value.....	\$1, 087, 477	. 4	\$823, 161	75. 7	14
7,500 volts to, but not including 17,000 volts: Value.....	\$579, 475	. 2	\$421, 590	72. 7	12
17,000 volts to, but not including 45,000 volts: Value.....	\$666, 917	. 3	\$485, 916	72. 9	11
45,000 volts and over: Value.....	\$776, 391	. 3	\$643, 438	82. 9	9
Suspension type: Value.....	\$3, 329, 023	1. 3	\$2, 505, 757	75. 3	11
Knobs, tubes, and cleats: Value.....	\$1, 097, 893	. 4	(²)		6
Other electrical supplies: Value.....	\$17, 299, 555	6. 7	\$3, 351, 392	19. 4	37
Garden pottery: Value.....	\$230, 445	. 1	\$171, 959	76. 4	18
Art pottery: Value.....	\$3, 512, 281	1. 4	\$1, 463, 657	41. 7	60
Gas Radiants and back walls for use in portable ovens: Value.....	\$906, 350	. 4	(²)		7
Saggers (of own make): Value.....	\$586, 788	. 2	\$370, 436	63. 1	42
Other pottery products: Value.....	\$6, 106, 248	2. 4	(²)		
Industry-total ³	\$256, 374, 176				

¹ Less than 1/10 of 1 percent.² Not shown to avoid disclosure of individual operations (seven items).³ Analyzed, other products not analyzed.⁴ In "Plumbers' Supplies" industry table.⁵ Includes clay products manufactured by establishments classified by the Bureau of the Census in other industries.

Source: Census of Manufactures, 1937.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of products	Percent of total
Under 10 percent.....	3	\$50, 218, 792	22.3
10.0 to 19.9 percent.....	15	96, 835, 389	43.0
20.0 to 29.9 percent.....	13	57, 777, 348	25.6
30.0 to 39.9 percent.....	9	11, 099, 147	4.9
40.0 to 49.9 percent.....	6	4, 808, 848	2.1
50.0 to 59.9 percent.....	3	4, 533, 879	2.0
60.0 to 69.9 percent.....	2	166, 117	.1
Total.....	50	\$225, 439, 520	100.0
Products not analyzed: Value.....	2	\$10, 309, 290	-----
Included in "Plumbers' Supplies".....	9	\$20, 625, 366	-----
U. S. Total ¹	61	\$256, 374, 176	-----

¹ Includes Clay Products and Pottery.

Source: Census of Manufactures, 1937.

TABLE 3.—*Frequency of Appearances of Same Companies Among Leading Four Producers in "Clay Products and Other Refractories" Products, 1937*

Number of appearances	Number of companies	Number of appearances	Number of companies
1	96	4	5
2	10	5	2
3	8	6	1

Source: Census of Manufactures, 1937.

LUMBER CUT, 1937

Description of the industry.—Lumber cut in logging camps, merchant sawmills, combined sawmills and planing mills, including those engaged in the manufacture of boxes, veneer mills, and cooperage-slide mills is classified in this industry. The figures do not include lumber cut in planing mills and box factories not operated in conjunction with sawmills. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for all Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Douglas fir: M. ft. b. m.....	¹ 6, 491, 838	26.41	1, 466, 111	22.58	841
Ponderosa pine: M. ft. b. m.....	² 3, 260, 254	13.26	508, 506	15.59	452
Southern pine: M. ft. b. m.....	³ 7, 004, 362	28.49	489, 140	6.98	2, 872
Other kinds: M. ft. b. m.....	7, 827, 903	31.84	(⁴)	(⁴)	(⁴)
U. S. Total.....	⁵ 24, 584, 357	100.00	-----	-----	-----

¹ This does not include 62,943 M. ft. reported by many small establishments whose products or receipts for work done amounted to less than \$5,000.² This does not include 47,401 M. ft. reported by many small establishments whose products or receipts for work done amounted to less than \$5,000.³ This does not include 687,114 M. ft. reported by hundreds of small establishments whose products or receipts for work done amounted to less than \$5,000.⁴ Not analyzed because of diversity of products.⁵ Does not include 1,412,500 M. ft. by 6,810 (small) mills with products valued at less than \$5,000.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. Total	Number of products	Value of products	Percent of total
Under 10 percent.....	2	\$16,756,454	100.0
10.0 to 19.9 percent.....	1	(¹)	-----
20.0 to 29.9 percent.....	-----	-----	-----
30.0 to 39.9 percent.....	-----	-----	-----
40.0 to 49.9 percent.....	-----	-----	-----
50.0 to 59.9 percent.....	-----	-----	-----

¹ Included in total for under 10 percent group to avoid disclosing output of individual establishments.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Lumber Cut, 1937*

Number of appearances	Number of companies
1	10
2	1

STRUCTURAL AND ORNAMENTAL METAL WORK, 1937

Description of industry.—The establishments classified in this industry are engaged primarily in fabricating metal for structural and ornamental purposes. Some of the chief products are structural steel for buildings and bridges, ornamental iron and steel work, balconies, bank fixtures, coal chutes, elevator inclosures, iron fences, fire escapes, and gratings. Some fabrication work, such as cutting and punching beams and plates, is done by establishments whose principal business is construction work or the buying and selling of steel and other metal, but the Census figures relate to shop fabrication only. Production data cover structural and ornamental work made only in plants not operated in connection with rolling mills, that is, plants operated entirely independently of rolling mills, although in some cases under the same ownership. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Structural steel, fabricated:					
For buildings, value.....	\$121,454,458	44.1	\$30,236,394	24.9	634
For bridges, value.....	\$35,854,489	13.0	\$19,713,736	55.0	176
Other than for buildings and bridges, value.....	\$35,108,971	(¹)	(²)	-----	201
Structural steel not reported by use, value.....	\$11,212,899	(¹)	(²)	-----	87
Stairs and staircases, value.....	\$6,397,007	2.3	\$779,705	12.2	396
Steel grating, treads, and flooring, value.....	\$5,612,683	1.3	\$1,137,770	31.5	215
Fire escapes, value.....	\$2,009,155	.7	\$342,258	17.0	354
Bars and rods for reinforcing concrete, value.....	\$15,837,212	5.8	\$7,012,293	44.3	166
Expanded metal lath, value.....	\$11,812,835	4.3	\$759,531	64.2	31
Iron fences and gates other than wire, value.....	\$1,673,546	.6	\$399,109	23.8	257
Grilles and railing, value.....	\$4,149,929	1.5	\$1,468,420	35.4	393
Ornamental iron and steel, value.....	\$12,851,846	4.7	\$1,650,745	12.8	508
Ornamental bronze work, value.....	\$4,570,168	(¹)	(¹)	-----	186
Other nonferrous ornamental work for buildings, value.....	\$1,997,379	(¹)	(²)	-----	106
Structural and ornamental work not reported by kind, value.....	\$5,157,890	(¹)	(²)	-----	82
Other structural and ornamental metal products, value.....	\$1,474,887	(¹)	(²)	-----	47

¹ Not shown to avoid disclosure of individual operations.

² Not analyzed because of diversity of products.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Production*

Percent of U. S. total	Number of products	Total U. S. value	Percent of total
Under 10 percent.....	4	\$24, 870, 691	11. 3
10 to 19.9 percent.....	3	\$127, 277, 913	57. 8
20 to 29.9 percent.....	4	\$68, 674, 704	30. 9
30 to 39.9 percent.....	1	(1)	-----
Total.....	11	\$220, 223, 308	100. 0
Items not included in table.....	5	\$34, 952, 026	-----
Total, U. S.....	16	\$275, 175, 334	-----

¹ Included in 20 to 29.9 percent group.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Structural and Ornamental Metal Products, 1937*

Number of Companies	Number of appearances
27	1
5	2
1	3

CEMENT, 1937

Description of the industry.—This industry consists in the manufacture of hydraulic cement from rock usually quarried by the manufacturing establishments. The principal product is Portland cement, but small quantities of natural, puzzolan, and masonry cements are also manufactured. No detailed statistics for the quantities and the values of the several kinds of cement are compiled by the Bureau of the Census, as such statistics are published annually by the Bureau of Mines, Department of the Interior. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value of All Companies and for Four Leading Companies in the United States*

Name of Product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Portland cement:					
Barrels.....	116, 208, 639	97. 2	33, 293, 589	28. 6	79
Value.....	\$176, 615, 487	97. 5	\$53, 108, 440	30. 0	
Natural, puzzolan, and masonry cement:					
Barrels.....	3, 567, 894	2. 8	1, 620, 511	45. 4	40
Value.....	\$4, 570, 418	2. 5	\$2, 128, 608	46. 6	
U. S. Value.....	\$181, 185, 905	100. 0	-----	-----	-----

TABLE 2.—*Products Classified by Proportion of Total Value Contributed by Leading Companies, 1937*

Proportion of total value of commodities produced by the leading company	Number of products	Total value of products	Percent of U. S. total
10%-19.9%.....	2	\$181, 185, 905	100. 0
U. S.....	2	\$181, 185, 905	100. 0

TABLE 3.—Frequency of Appearance of Same Companies Among Leading Four Producers

Number of appearances	Number of companies
1	6
2	1

MARBLE, GRANITE, SLATE, AND OTHER STONE CUT AND SHAPED, 1937

Description of the industry.—This industry classification embraces establishments engaged primarily in cutting, shaping, and finishing marble, granite, slate, and other stone for building, monumental, and miscellaneous uses. The census does not cover the numerous small yards that purchase and sell finished or partly finished monuments and tombstones but do no work on them except lettering and finishing to individual order. The manufacture of grindstones, pulpstones, hones, and whetstones is not included in this industry. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937

Name of Product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Building stone:					
Marble, exterior use: Value.....	\$1,987,076	2.5	\$1,286,427	64.7	57
Marble, interior use: Value.....	\$7,886,879	10.2	\$2,653,979	33.7	141
Granite: Exterior use: Value.....	\$4,300,851	6.6	\$1,491,857	34.7	104
Limestone:					
Exterior building use: Value.....	\$9,413,970	12.1	\$2,587,201	27.5	152
Interior use: Value.....	\$431,419	.6	\$351,300	81.4	.20
Slate:					
For roofing: Value.....	\$2,157,354	2.8	\$819,063	38.0	44
Structural and sanitary: Value.....	\$415,010	.6	\$173,338	41.8	36
Other building stone:					
Exterior use: Value.....	\$1,252,241	1.6	\$711,784	56.8	46
Interior use: Value.....	\$311,732	.4	\$257,307	82.5	17
Monumental stones:					
Marble: Value.....	\$5,476,838	7.0	\$1,968,950	36.0	481
Granite: Value.....	\$35,720,549	46.0	\$3,671,042	8.6	905
Limestone: Value.....	\$56,662	.1	\$39,747	70.3	28
Other monumental stones: Value.....	\$44,044	.1	\$40,234	91.3	10
Stones for ornamental and miscellaneous uses:					
Marble statuary and pedestals:					
Value.....	\$28,166	(1)	\$22,411	79.6	18
Marble table tops: Value.....	\$162,821	.2	\$100,900	62.0	44
Marble church furniture, altars:					
Value.....	\$40,680	.1	\$37,140	74.8	18
Marble terrazo chips: Value.....	\$181,579	.2	\$118,511	65.3	17
Marble, other: Value.....	\$508,622	.7	\$337,460	66.4	31
Granite paving blocks: Value.....	\$829,971	1.1	\$709,770	85.5	19
Granite curbing: Value.....	\$868,593	1.1	\$547,435	63.0	41
Granite rubble: Value.....	\$84,583	.1	\$62,686	74.1	15
Granite, Other: Value.....	\$734,192	.9	(2)	-----	38
Slate:					
Blackboards, bulletin boards:					
Value.....	\$577,869	.7	\$336,843	58.3	24
School slates: Value.....	\$53,731	-----	(2)	-----	8
Flagstones, Walkways, etc.: Value.....	\$138,453	.2	\$104,706	75.6	29
Other: Value.....	\$404,247	-----	(2)	-----	52
Stones for ornamental and miscellaneous uses:					
Limestone: Value.....	\$123,007	-----	(2)	-----	34
Other stones, paving block, flagging: Value.....	\$524,121	-----	(2)	-----	39
Other stones, benches, tables, etc.: Value.....	\$1,125	-----	(2)	-----	7
All other: Value.....	\$2,969,696	-----	(2)	-----	59

¹ Less than .1 percent.² Not shown because of diversity of products.³ Not shown to avoid approximate disclosure of individual operations.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in United States Total Production*

Percent of U. S. total	Number of products	Total U. S. value of products	% of total value of products
Under 10.0 percent.....	2	(¹)	61.9
10.0 to 19.9 percent.....	6	\$65,553,030	28.0
20.0 to 29.9 percent.....	6	\$4,537,709	6.2
30.0 to 39.9 percent.....	6	\$2,195,535	3.1
40.0 to 49.9 percent.....	1	\$598,038	.6
50.0 to 59.9 percent.....	2	(²)	.2
Total.....	23	\$72,884,312	100.0
Products not analyzed.....	7	\$4,810,419	-----
U. S. total.....	30	\$77,694,731	-----

¹ Included in 10.0 to 19.9 percent group.² Included in 40.0 to 49.9 percent group.TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Marble, Granite, and Slate Products, 1937*

Number of companies	Number of appearances	Number of companies	Number of appearances
66	1	3	3
6	2	1	5

Source: Census of Manufactures, 1937.

SELECTED PRODUCTS IN THE IRON AND STEEL INDUSTRIES, 1937

Description of the industry.—The products in this table are a part of the steel-works and rolling-mill products industry which consists in the conversion of pig iron and scrap into steel and the rolling of iron and steel. In many cases the processes of conversion and rolling are performed in the same plants, and in such cases the value of products represents only the finished products. Some steel plants, however, produce crude steel or partly rolled steel, which is used as a material by other steel plants, and this causes some degree of duplication in the figures for value of products.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Rails made for sale and for interplant transfer:					
Quantity.....	1,408,160	24.1	(¹)	(¹)	5
Value.....	\$53,716,019	20.3	(¹)	(¹)	
Reroiled and renewed rails (not including rails reroiled by makers of ingots from new seconds) made for sale and for interplant transfer:					
Quantity.....	32,164	.6	32,164	100.0	3
Value.....	\$1,354,519	.5	\$1,354,519	100.0	
Rail joints and fastenings, tieplates, made for sale and for interplant transfer:					
Quantity.....	459,966	7.8	311,433	67.7	16
Value.....	\$23,750,579	9.0	\$16,234,608	68.6	

See footnote at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Structural shapes (not assembled or fabricated) heavy, made for sale and for interplant transfer:					
Quantity.....	2,392,966	41.1	(1)		16
Value.....	\$110,873,129	42.0	(1)		
Structural shapes (not assembled or fabricated) light, made for sale and for interplant transfer:					
Quantity.....	721,829	12.4	466,117	64.6	29
Value.....	\$37,757,829	14.3	\$24,653,776	65.3	
Concrete reinforcing (including twisted bars) made for sale and for interplant transfer:					
Quantity.....	814,191	14.0	493,601	60.6	36
Value.....	\$36,780,673	13.9	\$21,538,163	58.6	
U. S. Total:					
Quantity.....	5,829,276				
Value.....	\$264,232,748				

¹ Withheld to avoid disclosure of operations of individual establishments.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. Total	Number of products	Value of products	Percent of total
20.0 to 29.9 percent.....	1	(1)	
30.0 to 39.9 percent.....	2	\$98,239,081	37.2
40.0 to 49.9 percent.....	1	(2)	
50.0 to 59.9 percent.....	2	\$165,943,667	62.8
U. S. Total.....	6	\$264,232,748	100.0

¹ Included in 30.0 to 39.9 percent group.

² Included in 50.0 to 59.9 percent group.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in the Selected Products in the Iron and Steel Industries, 1937*

Number of appearances	Number of companies
1	7
2	2
4	2

LIME, 1937

Description of the industry.—This industry designation is applied to establishments engaged in the production of lime, chiefly from limestone but to a small extent from shell and other substances. The principal products are quick-lime and hydrated (slaked) lime. The quarrying and the burning of limestone are usually carried on by the same establishments, and for such establishments the statistics given cover both branches of the work. (Establishments engaged exclusively in the quarrying of limestone are not covered by the Census of Manufactures.) The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Quicklime:					
Tons.....	2, 143, 517	58. 6	477, 746	22. 2	
Value.....	\$14, 847, 633	55. 5	\$3, 284, 316	22. 1	144
Hydrated lime:					
Tons.....	1, 119, 437	30. 6	341, 660	30. 5	
Value.....	\$9, 698, 984	36. 3	\$3, 329, 785	34. 3	119
Agricultural lime:					
Tons.....	396, 694	10. 8	90, 015	22. 6	
Value.....	\$2, 193, 294	8. 2	\$729, 226	33. 2	83
Total:					
Tons.....	3, 659, 648				
Value.....	\$26, 739, 911				

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percentage of U. S. Total	Number of Products	Value of Products	Percent of Total
Under 10 percent.....	1	\$26, 739, 911	100. 0
10-19.9.....	1	(1)	(1)
20-29.9.....	1	(1)	(1)
Total.....	3	26, 739, 911	100. 0

¹ Included in under 10 percent group.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in 1937*

Number of Appearances	Number of Companies
1	8
2	2

CONCRETE PRODUCTS

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of building materials, pipe and conduit, and commodities such as poles and piling, vaults, trays, etc., from a combination of stone or gravel, sand, and cement. The classification does not cover concrete construction work on buildings, bridges, etc. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States, 1937*

Name of Product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Building materials:					
Art marble and Spanish floor tile:					
Tons.....	21, 859	-----	19, 070	87. 2	-----
Value.....	\$211, 529	0. 3	\$167, 957	79. 4	11
Block tile, exc. roofing tile:					
Tons.....	2, 344, 310	-----	163, 387	7. 0	-----
Value.....	\$14, 862, 739	20. 0	\$1, 175, 893	7. 9	625
Brick:					
Tons.....	49, 384	-----	14, 669	29. 7	-----
Value.....	\$347, 900	. 5	\$112, 879	32. 4	93
Cast stone:					
Tons.....	92, 305	-----	13, 716	14. 9	-----
Value.....	\$2, 260, 744	3. 0	\$450, 287	19. 9	129
Roofing tile:					
Tons.....	74, 108	-----	69, 121	93. 3	-----
Value.....	\$1, 948, 727	2. 6	\$1, 568, 457	95. 9	21
Squares for walls, ceilings, etc.:					
Tons.....	6, 614	-----	6, 145	92. 9	-----
Value.....	\$65, 221	. 1	\$59, 964	1. 9	-----
Circular structures:					
Tons.....	63, 742	-----	48, 750	76. 5	-----
Value.....	\$1, 519, 563	2. 0	\$1, 245, 612	82. 0	24
Conduits and pipes:					
Culvert pipe:					
Tons.....	572, 689	-----	148, 527	25. 9	-----
Value.....	\$6, 701, 367	9. 0	\$2, 032, 368	30. 3	169
Drain tile:					
Tons.....	71, 056	-----	20, 876	29. 4	-----
Value.....	\$639, 477	. 9	\$227, 514	35. 6	115
Electric conduits:					
Tons.....	1, 649	-----	(1)	-----	-----
Value.....	\$31, 517	(2)	(1)	-----	-----
Irrigation pipe:					
Tons.....	170, 737	-----	43, 445	25. 4	-----
Value.....	\$2, 003, 573	2. 7	\$550, 612	27. 5	76
Pressure pipe:					
Tons.....	205, 618	-----	(1)	-----	-----
Value.....	\$4, 323, 603	5. 8	(1)	-----	-----
Sewer pipe:					
Tons.....	535, 190	-----	181, 347	33. 9	-----
Value.....	\$5, 723, 901	7. 7	\$1, 944, 124	34. 0	126
Laundry trays:					
Tons.....	29, 314	-----	10, 923	37. 3	-----
Value.....	\$682, 731	. 9	\$261, 841	38. 4	32
Vaults:					
Tons.....	109, 636	-----	17, 608	16. 1	-----
Value.....	\$3, 676, 445	5. 0	\$582, 684	15. 8	258
Paving materials:					
Tons.....	157, 460	-----	125, 669	79. 8	-----
Value.....	\$672, 935	. 9	\$596, 961	88. 7	13
Poles and posts:					
Tons.....	15, 965	-----	5, 883	36. 8	-----
Value.....	\$493, 455	. 7	\$344, 421	69. 8	48
Piling:					
Tons.....	16, 705	-----	(1)	-----	-----
Value.....	\$217, 662	. 3	(1)	-----	-----
Premixed concrete:					
Tons.....	-----	. 2	710, 341	-----	-----
Value.....	\$23, 434, 704	31. 6	\$4, 902, 997	20. 9	141
Septic tanks:					
Tons.....	9, 046	-----	2, 314	25. 6	-----
Value.....	\$215, 605	. 3	\$81, 624	37. 9	90
Other products in which cement is a material: Value.....	\$4, 233, 770	5. 7	(3)	-----	-----
U. S. total industry 4.....	\$74, 267, 168	-----	-----	-----	-----

1 Withheld to avoid approximate disclosure of individual operations.

2 Under .05 percent.

3 Omitted because of diversity of products.

4 Includes concrete products manufactured by establishments classified by the Bureau of the Census in other industries.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of Products	Percent of total
Under 10 percent.....	5	\$44, 582, 532	68.1
10 to 19.9 percent.....	6	15, 966, 654	24.4
20 to 29.9 percent.....	2	704, 984	1.1
30 to 39.9 percent.....	2	1, 584, 784	2.4
40 to 49.9 percent.....	1	(1)	(1)
50 to 59.9 percent.....			
60 to 69.9 percent.....	2	2, 621, 662	4.0
Total.....	17	\$65, 460, 616	100.0
Other items not incl.....	4	8, 806, 552	
Total, U. S.....	21	\$74, 267, 168	

¹ Included in 30.0 to 39.9 percent group.

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Concrete Products, 1937*

Number of Appearances	Number of companies
1	62
2	3

GLASS AND GLASSWARE, 1937

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of glass, glassware, and certain other glass products from raw materials, and does not include glass cutting, beveling, bending, engraving, staining, or ornamenting, or making glass labels, except to the extent to which these activities are carried on by the same establishments in which the glass is manufactured. Establishments manufacturing glassware from purchased "blanks" are classified in the Mirrors and Other Glass Products Made of Purchased Glass industry. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for all Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Flat glass:					
Window glass:					
Square feet.....	616, 566, 127		497, 037, 800	80.6	9
Value.....	\$31, 389, 468	8.9	\$26, 670, 587	85.0	
Obscured glass, including cathedral & skylight glass & opalescent sheet glass:					
Rolled glass, rough-fluted, figured, etc.:					
Square feet.....	21, 003, 837		19, 509, 803	92.9	7
Value.....	\$1, 386, 645	0.4	\$1, 167, 142	84.2	
Other obscured glass.....					
Square feet.....	6, 694, 567		(1)		7
Value.....	\$2, 579, 360	0.7	(1)		
Wire glass, rough and polished:					
Square feet.....	21, 343, 221		(1)		5
Value.....	\$2, 719, 192	0.8	(1)		
Other flat glass, including glass block or brick: Value.....	\$62, 864, 016	17.8	(2)		11

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Glassware, except containers, machine-made (automatic) tableware, pressed and blown:					
Tumblers:					
Dozen.....	39,653,361		33,443,816	84.3	8
Value.....	\$12,563,673	3.5	\$10,046,102	80.0	
Plates, dishes & cups & saucers:					
100 pieces.....	3,887,859		(2)		
Value.....	\$12,033,105	3.4	(2)		6
Other tableware:					
100 pieces.....	1,418,187		(1)		
Value.....	3,108,064	0.9	(1)		7
Handmade tableware:					
Pressed ware: Tumblers, goblets & barware:					
Dozen.....	923,773		528,305	57.2	15
Value.....	\$1,419,627	0.4	1,017,499	71.7	
Plates, dishes, & cups & saucers:					
100 pieces.....	113,960		68,150	59.8	13
Value.....	\$1,428,304	0.4	986,260	69.1	
Other tableware:					
100 pieces.....	324,170		(1)		
Value.....	\$3,248,772	0.9	(1)		11
Blown ware:					
Tumblers, goblets & barware:					
Dozen.....	4,509,422		1,899,821	42.1	27
Value.....	\$6,382,744	1.8	\$2,784,386	43.7	
Other tableware (bowls, vases, jugs, etc.):					
100 pieces.....	43,995		(1)		14
Value.....	\$897,748	0.3	(1)		
Lighting glassware (pressed & blown):					
Shades, globes, reflectors, etc.:					
Value.....	\$9,160,030	2.6	\$4,526,182	49.4	27
Lamp chimneys:					
Dozen.....	2,208,504		1,264,896	57.3	
Value.....	\$1,380,614	0.4	\$805,276	58.3	18
Other lighting glassware, including electric-light bulbs and oil lamps: Value.....	\$11,287,049	3.2	(2)		12
Lenses:					
Motor-vehicle:					
Dozen.....	2,829,622		2,300,706	81.3	9
Value.....	\$1,755,645	0.5	\$1,405,777	80.1	
Others:					
Dozen.....	117,781		(1)		4
Value.....	\$1,328,930	0.4	(1)		
Technical, scientific, & industrial glass (press & blown):					
Tubing:					
Pound.....	38,852,630				5
Value.....	\$4,867,480	1.4	(2)		
Insulators: Value.....	855,510	0.2	(2)		5
Other: Value.....	\$4,659,612	1.3	(1)		8
Pressed and blown glassware (including glass cooking ware or ovenware) not specified above: Value.....	\$9,602,741	2.7	\$5,684,566	59.2	25
Glass containers: Food product containers:					
Milk bottles:					
Gross.....	2,676,711		2,304,030	86.1	12
Value.....	\$14,272,620	4.0	12,736,431	89.2	
Narrow-neck (packers' ware):					
Gross.....	3,915,262		2,786,859	71.2	
Value.....	\$12,510,704	3.5	\$9,545,391	76.3	
Wide-mouth bottles & jars (packers' ware):					
Gross.....	9,310,496		6,459,470	69.4	
Value.....	\$26,238,445	7.4	\$18,054,239	68.8	
Pressed ware (packers' ware and jelly glasses):					
Gross.....	589,002		(1)		
Value.....	\$1,523,091	0.4	(1)		

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Fruit jars (home pack):					
Gross.....	1, 156, 334		(¹)		6
Value.....	\$6, 717, 915	1.9	(²)		
Beverage containers: Beer bottles:					
Gross.....	4, 673, 982		(²)		11
Value.....	\$13, 382, 049	3.8	(²)		
Liquor ware (including wines & cordials):					
Gross.....	8, 311, 692		4, 919, 686	59.2	31
Value.....	\$30, 462, 243	8.6	\$19, 234, 589	63.1	
Other pressure and non-pressure ware (including soft-drink, ginger-ale, water & grape-juice bottles):					
Gross.....	3, 473, 812		(¹)		24
Value.....	\$13, 629, 438	3.8	(¹)		
Medicinal and toilet preparations containers:					
Gross.....	18, 348, 169		13, 107, 348	71.4	26
Value.....	\$36, 156, 914	10.2	\$25, 300, 435	70.0	
General-purpose containers (carboys, pantry jars, etc.) and other containers not classified above:					
Dozens.....	22, 794, 125		(¹)		26
Value.....	\$5, 752, 783	1.6	(¹)		
Other glass products: Value.....	\$6, 352, 771	1.8	(¹)		22
Total value of items not analyzed.....	\$45, 459, 209				
Total value of items not shown because of disclosures.....	\$112, 007, 124				
Total U. S. value for industry.....	\$354, 038, 944				

¹ Not analyzed because of diversity of products.² Withheld to avoid disclosure of operations of individual establishments.TABLE 2.—*Products Classified by Proportion of Total Value Contributed by Leading Four Companies, 1937*

Proportion of total value of commodities produced by the leading company	Number of products	Total value of products	Percent of U. S. total
Under 10%.....			
10-19.9.....	4	\$26, 565, 142	8.6
20-29.9.....			
30-39.9.....	6	\$87, 273, 124	28.3
40-49.9.....	8	\$156, 354, 275	50.7
50-59.9.....	5	\$38, 387, 194	12.4
Total.....	23	\$308, 579, 735	100.0
Products not analyzed.....	11	\$45, 459, 209	
Total U. S.	34	\$354, 038, 944	

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Products, 1937*

Number of companies	Number of appearances among leading four companies	Number of companies	Number of appearances among leading four companies
38	1	2	4
4	2	1	7
1	5		

HEATING AND COOKING APPARATUS, EXCEPT ELECTRIC

Description of the industry.—The principal commodities classified in the industry are steam and hot-water heating boilers and radiators and fittings; accessories, such as valves, regulators, thermostats, etc.; and domestic, commercial, and industrial oil burners; stoves, ranges, water-heaters, and warm-air furnaces. The manufacture of electric heating and cooking apparatus is classified by the Census in the Electrical Machinery, Apparatus, and Supplies industry, and is therefore excluded from this table. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Cast-iron and hot-water heating boilers:					
Number.....	(¹)		(¹)		
Value.....	\$15,975,253	3.689	\$8,770,080	54.9	48
Steel steam and hot-water heating boilers:					
Number.....	(¹)		(¹)		
Value.....	\$9,476,961	2.188	\$5,875,458	62.0	69
Parts for heating boilers: Value.....	\$1,311,174	0.302	\$891,736	68.0	20
Radiators:					
Cast-iron: Value.....	\$14,749,497	3.406	\$9,003,038	61.0	22
Copper: Value.....	\$2,269,969	0.524	\$1,893,388	83.4	11
Gas and oil-fired: Value.....	\$67,316	0.015	\$67,316	(²)	3
Warm-air furnaces, manufactured:					
Number.....	(¹)		(¹)		
Value.....	\$26,865,268	6.205	\$8,965,484	33.4	155
Furnaces assembled from purchased parts:					
Number.....	(¹)		(¹)		
Value.....	\$1,652,587	0.381	\$1,072,899	65.0	30
Warm-air-furnace parts and registers: Value.....	\$9,679,286	2.235	\$5,913,766	61.1	89
Warm-air-furnace unit heaters:					
Number.....	(¹)		34,562		
Value.....	\$7,194,515	1.661	\$3,611,799	50.2	32
Coal and wood cooking stoves:					
Porcelain enameled:					
Number.....	(¹)		96,311		
Value.....	\$17,519,140	4.115	\$4,971,821	27.9	114
Other than porcelain enameled:					
Number.....	(¹)		81,649		
Value.....	\$5,838,632	1.348	\$1,465,902	25.1	94
Coal and wood heating stoves:					
Cast-iron and cast-steel:					
Porcelain enameled:					
Number.....	(¹)		93,543		
Value.....	\$10,621,854	2.430	\$3,066,496	29.1	96
Other:					
Number.....	(¹)		(¹)		
Value.....	\$5,242,335	1.210	\$1,050,650	20.0	100
Sheet-metal (air-tight, etc.):					
Number.....	600,729		488,525	81.3	
Value.....	\$1,089,825	0.251	\$773,986	71.0	24
Coal and wood water heaters (domestic supply):					
With storage tanks attached:					
Number.....	(¹)		(¹)		
Value.....	\$642,264	0.148	\$494,743	77.0	12
Without storage tanks:					
Number.....	186,716		111,656	60.0	
Value.....	\$1,415,175	0.326	\$862,702	61.0	42
Parts for coal and wood stoves, ranges, and heaters: Value.....	\$2,371,246	0.547	\$491,489	20.7	89
Gas cooking stoves and ranges:					
Porcelain enameled, with ovens:					
Number.....	1,393,910		495,941	35.6	
Value.....	\$57,675,667	13.321	\$20,841,857	36.1	82

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Gas cooking stoves and ranges:					
Porcelain enameled, without ovens:					
Number.....	137		(¹)		
Value.....	\$11,522	0.002	(²)	99.0	5
Other than porcelain enameled, with and without ovens:					
Number.....	26,540		19,134	72.1	
Value.....	\$2,021,311	0.466	\$1,626,750	80.5	22
Gas hot plates:					
Number.....	126,149		75,716	60.0	
Value.....	\$352,021	0.081	\$202,160	57.4	31
Gas room heaters:					
Number.....	(¹)		(¹)		
Value.....	\$6,714,319	1.550	\$1,786,540	26.6	60
Gas water heaters (domestic supply):					
With storage tanks attached:					
Number.....	436,143		234,451	53.7	
Value.....	\$12,777,703	2.951	\$6,301,336	49.3	41
Without storage tanks:					
Number.....	(¹)		(¹)		
Value.....	\$3,059,226	0.706	\$1,363,129	44.5	35
Parts for gas stoves, ranges, and heaters: Value.....	\$2,633,542	0.608	\$984,784	37.4	58
Kerosene, distillate, and fuel-oil cooking stoves and ranges:					
Kerosene cooking stoves:					
Number.....	1,188,228		810,454	68.2	
Value.....	\$13,671,661	3.157	\$10,770,162	78.8	12
Distillate and fuel-oil cooking stoves and ranges:					
Number.....	95,439		93,237	97.7	
Value.....	\$726,463	0.167	\$598,271	82.3	16
Kerosene and distillate room heaters:					
Pot-type, distillate or kerosene space heaters:					
Number.....	379,419		198,682	52.4	
Value.....	\$12,250,107	2.829	\$6,576,898	53.7	37
Sleeve-type distillate or kerosene-burning heaters:					
Number.....	46,814		(³)		
Value.....	\$1,472,472	0.340	(³)	71.6	13
Wick-type portable fuelless room heaters:					
Number.....	328,236		273,974	83.5	
Value.....	\$1,919,350	0.443	\$1,662,946	86.6	8
Wickless-type portable fuelless room heaters:					
Number.....	152,884		(³)		
Value.....	\$1,787,349	0.412	(³)	96.9	6
Kerosene and distillate water heaters (domestic supply):					
Kerosene-burning water heaters:					
Wickless-type:					
Number.....	15,488		(¹)		
Value.....	\$199,833	0.046	(¹)	99.8	5
Wick-type:					
Number.....	19,758		15,353		
Value.....	\$302,132	0.069	\$249,922	82.7	12
Distillate-burning water heaters, pot-type and sleeve type:					
Number.....	13,526		12,225	90.4	
Value.....	\$434,983	0.100	\$355,677	82.0	17
Parts for kerosene, distillate, and fuel-oil stoves, ranges, and heaters: Value.....	\$3,207,545	0.740	\$2,511,861	78.3	20
Gasoline cooking stoves (except camp stoves) and ranges:					
Porcelain enameled and other:					
Number.....	105,069		75,300	71.7	
Value.....	\$3,049,732	0.704	\$2,436,484	79.9	12
Gasoline camp stoves:					
Number.....	179,954		179,954		
Value.....	\$661,695	0.152	\$661,695	(¹)	3
Gasoline water heaters and parts for gasoline stoves, ranges, and heaters: Value.....	\$796,880	0.183	(¹)	87.7	9

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Combination (coal, wood, and gas) cooking stoves and ranges:					
Porcelain enameled:					
Number.....	96,956		41,915	43.2	
Value.....	\$8,044,952	1.858	\$3,672,120	45.6	53
Other than porcelain enameled:					
Number.....	7,138		(³)		
Value.....	\$660,598	0.152	(³)	94.8	13
Laundry, orchard, etc.: Value.....	\$1,503,652	0.347	\$730,874	48.6	46
Stoves, ranges, water heaters, etc., not specified by kind: Value.....	\$237,517	0.054	(⁴)	60.0	9
Oil burners (not including boiler or furnace units):					
Domestic (for central heating systems and water heating):					
Mechanical or forced draft:					
Number.....	177,667		61,059	34.4	
Value.....	\$16,767,961	3.873	\$5,721,407	34.1	122
Atmospheric (natural draft):					
Number.....	3,575		2,937	82.1	
Value.....	\$136,539	0.031	\$122,319	89.6	11
Commercial oil burners:					
Mechanical or forced draft:					
Number.....	4,454		2,872	64.5	
Value.....	\$668,913	0.154	\$531,584	79.4	20
Industrial oil burners:					
Number.....	(¹)		3,545		
Value.....	\$1,928,946	0.445	\$1,089,282	56.5	45
Distillate-oil burners for cooking and heating stoves:					
Number.....	185,779		109,608	59.0	
Value.....	\$1,785,650	4.412	\$1,194,188	66.9	32
Fuel-oil boiler burner units:					
Number.....	9,398		7,218	76.8	
Value.....	\$2,326,287	0.537	\$2,179,425	93.7	11
Fuel-oil furnace burner units:					
Number.....	11,914		5,202	43.7	
Value.....	\$2,600,041	0.600	\$1,564,829	60.2	23
Gas burners (not including boiler or furnace units):					
Domestic (residence type):					
Number.....	(¹)		(¹)		
Value.....	\$1,947,925	0.449	\$1,408,701	72.3	23
Commercial and industrial: Value.....	\$1,160,987	0.268	\$811,084	69.8	29
Boiler-burner units (gas):					
Number.....	(¹)		(³)		
Value.....	\$1,072,837	0.247	(³)	94.7	9
Furnace burner units (gas):					
Number.....	(¹)		15,392		
Value.....	\$2,032,749	0.469	\$1,545,906	76.0	21
Parts for oil and gas burners: Value.....	\$2,177,475	0.502	\$1,039,990	47.8	46
Incinerators: Value.....	\$388,326	0.089	\$380,404	97.9	10
Portable ovens (detachable ovens for use on oil, gasoline, and other stoves):					
Number.....	613,027		438,264		
Value.....	\$726,414	0.167	\$525,320	72.3	11
Steam tables (except electric): Value.....	\$414,132	0.095	\$220,373	53.2	27
Other cafeteria, hotel, and kitchen apparatus: Value.....	\$4,771,254	1.102	\$1,845,941	38.7	52
Heating and cooking equipment not reported by kind: Value.....	\$3,855,493	0.890	\$3,069,270	79.6	22
Fittings and valves: Value.....	\$70,202,184	16.253	\$44,570,007	63.5	160
Thermostats:					
Number.....	(¹)		(¹)		
Value.....	\$24,639,167	5.691	\$18,524,514	75.1	54
Regulators: Value.....	\$5,666,678	1.308	\$2,545,782	44.9	57
Traps: Value.....	\$5,513,670	1.273	\$3,226,941	58.5	51
Other specialties: Value.....	\$6,218,632	1.436	\$2,251,958	36.2	80
Incubators: Value.....	\$2,545,757	0.588	\$1,644,245	64.6	22
Brooders: Value.....	\$3,041,887	0.702	\$1,749,429	57.5	47
U. S. Total: Value.....	\$432,942,994	100.000			

¹ Total quantities not reported.² Three companies represent U. S. total.³ Withheld to avoid disclosing operations of individual establishments.⁴ Not analyzed because of diversity of products.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. Total	Number of products	Value of products	Percent of total
Under 10.0 percent.....	4	\$20, 166, 532	4. 7
10.0 to 19.9 percent.....	15	181, 934, 176	42. 1
20.0 to 29.9 percent.....	17	82, 596, 267	19. 1
30.0 to 39.9 percent.....	9	27, 844, 339	6. 4
40.0 to 49.9 percent.....	12	109, 645, 805	25. 3
50.0 to 59.9 percent.....	3	5, 669, 093	1. 4
60.0 to 69.9 percent.....			
70.0 percent and over.....	4	4, 120, 254	1. 0
Other products not alalyzed.....		966, 523	
U. S. Total.....	64	432, 942, 994	100. 0

TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in the "Heating and Cooking Apparatus, Except Electric"*

Number of companies	Number of appearances	Number of companies	Number of appearances
166	1	2	5
10	2	1	6
3	3	1	7
2	4	1	8

PLANING MILL INDUSTRY, 1937

Description of the industry.—This industry—"Planing-Mill Products (Including General Millwork), Made in Planing Mills not Connected with Sawmills" embraces "independent" planing mills; that is, planing mills not operated in conjunction with sawmills. (Planing mills operated in conjunction with sawmills are classified in the Lumber and Timber Products industry.) The principal planing-mill products are dressed lumber, sash, doors, frames, interior woodwork, and molding.

The Bureau of the Census reports that some of the planing-mill operators, including several of the more important ones, failed to supply data in regard to the principal classes of planing-mill products manufactured. This necessitated in some cases the making of estimates and in others the inclusion of the data for the total output of the establishments in question in the figure for "Miscellaneous millwork and millwork not reported by kind." It is therefore probable that the figures and data presented here for doors, sash, windows, and door-frames do not represent complete totals. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by kind, quantity, and/or value for all companies and for four leading companies in selected areas in the United States: 1937*

Name of product	Production of all companies in area		Production of four leading cos. in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
Chicago area: ¹					
Doors:					
For general construction:					
Pine:					
Number.....	25,013	-----	15,600	62.4	33
Value.....	\$141,354	6.5	\$88,000	62.3	-----
Douglas fir:					
Number.....	1,432	-----	(²)	-----	5
Value.....	\$8,171	.4	(²)	-----	-----
Hardwood:					
Number.....	5,760	-----	4,650	80.7	-----
Value.....	\$49,244	2.3	\$36,850	74.8	20
Other:					
Number.....	(²)	-----	(²)	-----	2
Value.....	(²)	(²)	(²)	-----	-----
For garages:					
Number.....	(²)	-----	(²)	-----	12
Value.....	(²)	(²)	(²)	-----	-----
Other:					
Number.....	(²)	-----	(²)	-----	8
Value.....	(²)	(²)	(²)	-----	-----
Sash:					
Number.....	492,318	-----	320,067	65.0	-----
Value.....	\$626,009	28.9	\$420,074	67.1	32
Window and door frames:					
Number.....	269,529	-----	155,422	57.7	-----
Value.....	\$858,885	29.6	\$495,891	57.7	40
Milwaukee area: ²					
Doors:					
For general construction:					
Pine:					
Number.....	88,237	-----	70,452	79.8	-----
Value.....	\$375,753	37.4	\$294,213	78.3	18
Douglas fir:	(²)	(²)	(²)	-----	1
Hardwood:					
Number.....	11,206	-----	8,349	74.5	-----
Value.....	\$71,192	7.1	\$50,459	70.9	13
Other:	(²)	(²)	(²)	-----	3
For garages:					
Number.....	115	-----	115	100.0	-----
Value.....	\$760	.1	\$760	100.0	3
Other:					
Number.....	(²)	-----	(²)	-----	4
Value.....	(²)	(²)	(²)	-----	-----
Sash:					
Number.....	493,182	-----	396,891	80.5	-----
Value.....	\$298,719	29.8	\$203,060	68.0	18
Window and door frames:					
Number.....	60,029	-----	32,784	54.6	-----
Value.....	\$196,953	19.6	\$103,953	52.8	17
Los Angeles area: ⁴					
Doors:					
For general construction:					
Pine:					
Number.....	229,864	-----	147,008	63.9	-----
Value.....	\$850,332	(²)	\$547,790	64.4	33
Douglas fir:					
Number.....	106,103	-----	75,839	71.5	-----
Value.....	\$368,793	(²)	\$256,521	69.6	18
Hardwood:					
Number.....	9,286	-----	8,100	-----	-----
Value.....	\$74,556	(²)	\$65,776	-----	17
Other:					
Number.....	(²)	-----	(²)	-----	4
Value.....	(²)	(²)	(²)	-----	-----
For garages:					
Number.....	13,321	-----	12,809	96.1	-----
Value.....	\$217,814	(²)	\$212,839	97.7	9
Other: Value.....	\$31,756	(²)	(²)	-----	6
Sash:					
Number.....	1,116,672	-----	739,250	66.2	-----
Value.....	\$1,034,579	(²)	\$517,249	50.0	38
Window and door frames:					
Number.....	58,641	-----	18,795	32.1	-----
Value.....	\$183,413	(²)	\$96,207	52.4	27

See footnotes at end of table.

TABLE 1.—*Products by kind, quantity, and/or value of all companies and for four leading companies in selected areas in the United States: 1937—Continued*

Name of product	Production of all companies in area		Production of four leading cos. in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
San Francisco-Oakland area: ⁴					
Doors:					
For general construction:					
Pine:					
Number.....	28,479		17,626	61.9	
Value.....	\$128,165	10.1	\$83,841	65.4	26
Douglas fir:					
Number.....	30,237		22,408	74.1	
Value.....	\$128,546	10.1	\$99,425	77.3	20
Hardwood:					
Number.....	3,749		2,232	59.5	
Value.....	\$35,802	2.8	\$20,560	57.4	18
Other:					
Number.....	21,004		18,522	88.2	
Value.....	\$84,704	6.7	\$71,136	84.0	13
For garages:					
Number.....	5,213		2,200	42.2	
Value.....	\$49,428	3.9	\$20,750	42.0	31
Other, value.....	\$24,813	2.0	\$20,579	82.9	10
Sash:					
Number.....	316,676		164,445	51.9	
Value.....	\$400,190	31.6	\$180,856	45.2	45
Window and door frames:					
Number.....	147,738		54,063	36.6	
Value.....	\$414,828	32.8	\$157,390	37.9	53
Kansas City area: ⁵					
Doors:					
For general construction:					
Pine:					
Number.....	5,141		(²)		
Value.....	\$25,397	18.1	(²)		6
Douglas fir:					
Number.....	(²)		(²)		
Value.....	(²)		(²)		3
Hardwood:					
Number.....	659		(²)		
Value.....	\$6,830	4.9	(²)		6
Other.....	(²)		(²)		2
For garages:					
Number.....	292		(²)		
Value.....	\$3,569	2.5	(²)		5
Other.....	(²)		(²)		2
Sash:					
Number.....	97,057		(²)		
Value.....	\$83,302	59.4	(²)		6
Window and door frames:					
Number.....	4,598		(²)		
Value.....	\$14,507	10.4	(²)		6
Seattle-Tacoma area: ⁷					
Doors:					
For general construction:					
Pine:					
Number.....	2,790		2,790	100.0	
Value.....	\$8,320	.1	\$8,320	100.0	4
Douglas fir:					
Number.....	4,016,077		3,114,368	77.5	
Value.....	\$6,493,612	88.4	\$4,971,217	76.6	22
Hardwood:					
Number.....	10,959		8,403	76.7	
Value.....	\$64,197	.9	\$50,950	79.3	12
Other.....	(²)		(²)		3
Sash:					
Number.....	934,806		(²)		
Value.....	\$397,939	5.4	(²)		20
Window and door frames:					
Number.....	71,233		40,600	57.0	
Value.....	\$156,034	2.1	\$90,700	58.1	16

¹ Includes Cook, DuPage, Kane, Lake and Will counties Illinois; Lake County, Indiana.² Withheld to avoid approximate disclosure of individual operations.³ Includes Kenosha, Milwaukee and Racine counties Wisconsin.⁴ Includes Los Angeles County, California.⁵ Includes Alameda, Contra Costa, Marin, San Francisco and San Mateo counties California.⁶ Includes Clay and Jackson counties Missouri; Wyandotte County, Kansas.⁷ Includes King and Pierce counties Washington.

Source: Census of Manufactures, 1937.

COMMON BRICK INDUSTRY, 1937

Description of the industry.—Common Brick is a product classified by the Census in the Clay-Products industry. Although the Census of Manufactures usually confined its canvass to establishments with a yearly output valued at \$5,000 or more, reports are obtained for all establishments in the Clay-Products industry.

The District of Columbia industrial area includes the cities of Washington, D. C. and Alexandria, Va., the Counties of Montgomery and Prince Georges in Md., and Fairfax and Arlington in Va. The industrial areas, as defined by the Bureau of the Census, are as follows: Philadelphia-Camden area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; Burlington, Camden, and Gloucester Counties, N. J. San Francisco-Oakland area: Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties. Los Angeles area: Los Angeles County. New York City-Newark-Jersey City area: Bronx, Kings, New York, Queens, Richmond, and Westchester Counties, N. Y.; Bergen, Essex, Hudson, Middlesex, Passaic, and Union Counties, N. J. The four leading companies have been selected on the basis of value of product.

Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937

Industrial area	Production of all companies in area		Production of four leading companies in area		Total number of companies
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
District of Columbia.....	(1)	(1)	(1)	(1)	3
Philadelphia:					
Quantity.....	47, 116	1.4	29, 269	62.1	10
Value.....	\$622, 861	1.8	\$394, 492	63.3	
San Francisco:	(1)	(1)	(1)	(1)	2
Los Angeles:					
Quantity.....	\$1, 920	2.5	(1)	(1)	7
Value.....	\$647, 598	1.9			
New York City:					
Quantity.....	80, 994	2.8	(1)	(1)	7
Value.....	\$1, 034, 380	3.4			

¹ Withheld to avoid disclosure of operations of individual establishments.

EXHIBIT No. 897

[Chart based on following statistical data appears in text on p. 5210]

PLUMBERS' SUPPLIES, 1937

Description of the industry.—This industry embraces establishments whose principal products are enameled-iron (porcelain-enameled) sanitary ware (bathtubs, sinks, lavatories, laundry tubs, etc.), plumbers' brass goods (faucets, spigots, valves, fittings, etc.) range boilers (galvanized-iron and nonferrous), and miscellaneous bathroom and other fixtures used in plumbers' work. Manufacturers of vitreous-china and semivitreous or porcelain (all-clay) sanitary ware are classified in the Pottery industry, and manufacturers of concrete laundry trays in the Concrete Products industry, but production figures for these classes of sanitary ware are included in this table because of the close relation between them and the specific products of the Plumbers' Supplies industry. Faucets, spigots, valves, fittings, etc., are made to a considerable extent by establishments classified in five other industries; namely, (1) Nonferrous-Metal Alloys; Nonferrous-Metal Products, Except Aluminum, Not Elsewhere Classified; (2) Cast-Iron Pipe and Fittings; (3) Machine-shop Products; (4) Machinery Not Elsewhere Classified; (5) Heating and Cooking Apparatus, Except Electric. This table, however, presents production data on faucets, spigots, etc. for only those establishments included in the Plumbers' Supplies industry. The four leading companies have been selected on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Enameled iron sanitary ware:					
Bathtubs:					
Number.....	712, 134		509, 205	71.5	
Value.....	\$15, 731, 811	12.1	\$11, 543, 162	73.4	13
Lavatories:					
Number.....	943, 840		652, 370	69.1	
Value.....	\$6, 065, 179	4.7	\$4, 210, 633	69.4	15
Laundry tubs:					
Number.....	55, 371		45, 093	81.4	
Value.....	\$467, 182	.4	\$375, 885	80.5	13
Sink and laundry tray combinations:					
Number.....	148, 320		119, 416	80.5	
Value.....	\$2, 597, 412	2.0	\$2, 086, 884	80.3	10
Sinks:					
Number.....	1, 057, 647		662, 461	62.6	
Value.....	\$9, 564, 563	7.4	\$6, 076, 127	63.5	13
Flush tanks:					
Number.....	21, 236		18, 991	89.4	
Value.....	\$173, 500	(¹)	\$158, 574	91.4	8
Drinking fountains:					
Number.....			3, 712		
Value.....	\$77, 412	(¹)	\$70, 696	91.3	7
Tanks and shells for water heaters:					
Number.....	162, 426		66, 706	41.1	
Value.....	\$1, 590, 287	1.2	\$882, 018	55.5	7
Range boilers:					
Galvanized iron, 18-192 gal.:					
Number.....	928, 637		406, 653	43.8	
Value.....	\$5, 952, 728	4.6	\$2, 468, 336	41.5	12
Copper and non-ferrous alloy, 25-180 gal.:					
Number.....	39, 586		23, 720	59.9	
Value.....	\$1, 113, 319	.9	\$644, 268	57.9	14
Vitreous-China plumbing fixtures:					
Bathroom & toilet fixtures:					
Closet bowls:					
Siphon jets:					
Number.....	136, 580		104, 466	76.5	
Value.....	\$1, 111, 601	.9	\$894, 505	80.5	17
Washdowns:					
Number.....	940, 628		542, 284	57.7	
Value.....	\$3, 747, 142	2.9	\$2, 368, 811	63.2	19
Reverse traps:					
Number.....	310, 995		248, 189	79.8	
Value.....	\$1, 861, 894	1.4	\$1, 481, 605	79.6	14
Flush tanks:					
Lowdown:					
Number.....	1, 182, 489		684, 097	57.9	
Value.....	\$5, 259, 228	4.0	\$3, 226, 356	61.3	19
Lavatories:					
Number.....	269, 384		222, 614	82.6	
Value.....	\$3, 128, 462	2.4	\$2, 756, 391	88.1	17
Stalls:					
Number.....	31, 346		27, 000	86.1	
Value.....	\$890, 070	.7	\$769, 840	86.5	10
Other bathroom and toilet fixtures:					
Number.....			916, 952		
Value.....	\$3, 049, 307	2.3	\$2, 160, 832	70.9	21
Other vitreous-China fixtures:					
Number.....			278, 973		
Value.....	\$902, 651	.7	\$726, 801	80.5	11
Semi-vitreous or porcelain plumbing fixtures:					
Number.....			427, 697		
Value.....	\$675, 011	.5	\$558, 191	82.7	8
Faucets and spigots: Value.....	\$8, 949, 687	6.9	\$2, 809, 045	31.4	41
Other plumbers' brass goods: Value.....	\$40, 182, 498	30.9	\$13, 861, 185	34.5	123
Other plumbers' supplies: Value.....	\$9, 210, 300	7.1	(²)	(²)	

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Tollet seats:					
Wood:					
Number.....	1, 758, 420		710, 022	40. 4	
Value.....	\$2, 990, 377	2. 3	\$1, 374, 406	46. 0	21
Other:					
Number.....	966, 315		(¹)	(¹)	
Value.....	\$2, 727, 573	2. 1	(¹)	(¹)	
Sinks other than enameled-iron: Value	\$866, 656	. 7	(²)	(²)	
Drinking fountains other than enameled-iron and vitreous china:					
Number.....	36, 112		(³)	(³)	
Value.....	\$348, 251	. 3	(³)	(³)	
Concrete laundry trays:					
Number.....	29, 314		10, 923	37. 3	
Value.....	\$682, 731	. 6	\$261, 841	38. 4	32
U. S. total.....	\$ 129, 916, 732				

¹ Less than .05 percent.² Not analyzed because of diversity of products.³ Withheld to avoid approximate disclosure of individual operations.⁴ Includes plumbers' supplies manufactured by establishments classified by the Bureau of the Census in other industries.

Source: Census of Manufactures, 1937.

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of products	Percent of total
Under 10 percent.....			
10.0 to 19.9 percent.....	6	\$59, 871, 340	51. 3
20.0 to 29.9 percent.....	5	16, 479, 654	14. 1
30.0 to 39.9 percent.....	6	33, 814, 538	28. 9
40.0 to 49.9 percent.....	4	6, 598, 520	5. 7
50.0 to 59.9 percent.....	2	(¹)	(¹)
Total.....	23	\$116, 764, 052	100. 0
Products not analyzed.....	4	13, 152, 680	
U. S. total.....	27	\$ 129, 916, 732	

¹ Includes plumbers' supplies manufactured by establishments classified by the Bureau of the Census in other industries.² Included in 40.0 to 49.9 percent group.TABLE 3.—*Frequency of Appearance of Same Companies Among Leading Four Producers in Plumbers' Supplies, 1937*

Number of appearances	Number of companies	Number of appearances	Number of companies
1	28	4	1
2	4	14	2
3	2	18	1

EXHIBIT No. 898

[Chart based on following statistical data appears in text on p. 5211]

PLUMBERS' SUPPLIES, 1937

Each of the 23 products in the Plumbers' Supplies industry are classified into 10 percent intervals according to the proportion of the total value of that product produced by the leading company (the leading company being selected on the basis of value of product). The number of products and the total value represented by them in each interval is expressed in percentage terms on this chart. On the vertical scale 100.0 percent for the number of products equals 23 and for the value of products equals \$116,764,052.

Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products	Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products
Under 10.0%-----			30.0 to 39.9%-----	26.1	28.9
10.0 to 19.9%-----	26.1	51.3	40.0 to 49.9%-----	17.4	2.6
20.0 to 29.9%-----	21.7	14.1	50.0 to 59.9%-----	8.7	3.1

EXHIBIT No. 899

[Chart based on following statistical data appears in text on p. 5214]

ROOFING, BUILT-UP AND ROLL; ASPHALT SHINGLES, ETC. 1937

Description of the industry.—This industry embraces establishments engaged wholly or chiefly in the manufacture of asphalt and other saturated felts, in rolls or in shingle form, either smooth or faced with grit, for roofing purposes, and of roofing cements and coatings (except paint). Asphalt brick siding is also made by some of the establishments. This industry does not include the production of asbestos shingles and flexible roofing, which are classified by the Bureau of the Census in the Asbestos Products industry. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Asphalt smooth-roll roofing:					
Roofing square.....	17,378,058		5,838,799	33.6	
Value.....	\$17,495,534	16.0	\$5,833,705	33.33	30
Asphalt grit-roll roofing:					
Roofing square.....	8,176,525		3,146,925	38.5	
Value.....	\$11,800,692	10.8	\$4,239,064	35.9	26
Asphalt strip shingles—hexagon, etc., including patented:					
Roofing square.....	7,454,467		2,798,454	37.5	
Value.....	\$28,569,887	26.2	\$11,889,573	41.6	25
Asphalt individual shingles (all kinds):					
Roofing square.....	1,639,180		714,505	43.6	
Value.....	\$6,420,432	5.9	\$2,997,235	46.6	23
Asphalt-saturated felt:					
Tons.....	333,866		100,155	30.0	
Value.....	\$9,671,765	8.9	\$4,591,266	47.4	27
Tar-saturated felt:					
Tons.....	71,721		36,046	50.2	
Value.....	\$2,880,220	2.6	\$1,884,535	65.4	20
Waterproofing mems: value.....	\$483,573	.4	\$332,113	68.7	11

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Asphalt roof cement (solid):					
Tons.....	133,101		117,710	88.4	
Value.....	\$2,237,140	2.1	\$1,869,804	83.5	19
Coal-tar roofing pitch:					
Tons.....	128,580		(1)		
Value.....	\$1,651,445	1.5	(1)		
Fibrous plastic roof cement:					
Pounds.....	55,790,089		29,239,460	52.4	
Value.....	\$1,728,092	1.6	\$827,752	47.8	49
Fibrous liquid roof coating:					
Gallon.....	8,128,315		2,148,850	26.4	
Value.....	\$2,345,821	2.2	\$712,799	30.3	58
Nonfibrous liquid roof coating:					
Gallon.....	8,169,849		4,514,744	55.3	
Value.....	\$2,200,695	2.0	\$1,471,710	66.8	51
Asphalt brick siding: Value.....	\$1,933,369	1.8	\$1,108,985	57.3	15
Other roofing products: Value ¹	\$19,652,453	18.0	(2)	(2)	
U. S. Industry total ²	109,071,118	100.0			

¹ Withheld to avoid approximate disclosure of individual operations.² Not analyzed because of diversity of products.³ Includes roofing products manufactured by establishments classified by the Bureau of the Census in other industries.

Source: Census of Manufactures, 1937.

TABLE 2.—*Distribution of Total Value of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. total	Number of products	Value of products	Percent of total
Under 10 percent.....	1	(1)	
10.0 to 19.9 percent.....	8	² \$80,449,165	91.7
20.0 to 29.9 percent.....			
30.0 to 39.9 percent.....	1	(1)	
40.0 to 49.9 percent.....	3	³ \$8,969,500	8.3
Total.....	13	\$80,418,665	100.0
Products not analyzed, value.....	2	\$29,662,453	
U. S. Industry Total ⁴	15	\$109,081,118	

¹ Combined to avoid disclosing exactly or approximately the operations of individual establishments.² Includes value of products of one company classified in "Under 10 percent" group.³ Includes value of products of one company classified in "\$30.0 to 39.9 percent" group and one company in the "\$80.0 to 89.9 percent" group.⁴ Includes roofing products manufactured by establishments classified by the Bureau of the Census in other industries.TABLE 3.—*Frequency of Appearance of Same Companies Among the Leading Four Producers in Roofing, Built-up and Roll; Asphalt Shingles, etc., Products, 1937*

Number of companies	Number of appearances	Number of companies	Number of appearances
8	1	2	6
3	2	1	7
1	3	1	8
1	4		

EXHIBIT No. 900

[Chart based on following statistical data appears in text on p. 5215]

ROOFING, BUILT-UP AND ROLL; ASPHALT SHINGLES, ETC., 1937

Each of the 13 products in the Roofing, built-up and roll; asphalt shingles, etc., products industry are classified into 10% intervals according to the proportion of the total value of that product produced by the leading company, (the leading company being selected on the basis of value of product). The number of products and the total value represented by them in each interval is expressed in percentage terms. On the vertical scale 100.0 percent for the number of products equals 13 and for the value of products equals \$89,418,665.

Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products	Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products
Under 10.0%-----	7.7		30.0 to 39.9%-----	7.7	(1)
10.0 to 19.9%-----	61.6	1 91.7	40.0 to 49.9%-----	23.0	8.3
20.0 to 29.9%-----			50.0 to 59.9%-----		

¹ Includes value of one product, classified in the preceding group to avoid disclosure of operations of individual establishments.

EXHIBIT No. 901

[Chart based on following statistical data appears in text on p. 5216]

ASPHALTED-FELT-BASE FLOOR COVERING

Description of the industry.—This industry embraces establishments engaged primarily in the manufacture of a product that resembles linoleum, made by printing or painting on the surface of a foundation of asphalted felt. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—Products by Kind, Quantity, and Value in the United States: 1937

Name of product	Production of all companies		Production of four leading companies		Total number of companies
	Amount	% of U. S. total for all products in industry	Amount	% of total for all companies	
Asphalted felt base floor covering:					
Piece goods:					
12/4 and wider:					
Sq. yards.....	27,486,619	17.6	17,461,119	63.5	
Value.....	\$5,924,199	16.7	\$3,939,521	66.5	11
8/4:					
Sq. yards.....	46,548,979	29.8	33,108,423	71.1	
Value.....	\$10,148,730	28.6	\$7,022,075	69.2	10
Narrower than 8/4:					
Sq. yards.....	5,197,483	3.3	4,204,199	80.9	
Value.....	\$1,073,140	3.0	\$849,371	79.1	8
Rugs:					
Sq. yards.....	76,847,442	49.3	54,128,085	70.4	
Value.....	\$18,334,654	51.7	\$13,466,843	73.5	9
Total asphalted felt base floor covering:					
Sq. yards.....	156,080,523	100.0			
Value.....	\$35,480,723	100.0			

TABLE 2.—*Distribution of Products Classified According to the Proportion of the Leading Company in U. S. Total Production*

Percent of U. S. Total	Number of products	Value of products	Percent of total
Under 10 percent.....			
10.0 to 19.9 percent.....			
20.0 to 29.9 percent ¹	1		
30.0 to 39.9 percent.....	3	\$35,480,723	100.0
Total.....	4	\$35,480,723	100.0
Products not analyzed.....	0	0	0
U. S. Total.....	4	\$35,480,723	100.0

¹ Combined with 30.0 to 39.9 percent group.² Includes value of product classified in 20.0 to 29.9 percent group.TABLE 3.—*Frequency of Appearance of same Companies Among Leading Four Producers in Asphalted Felt Base Floor Covering Products, 1937*

Number of appearances	Number of companies	Number of appearances	Number of companies
1	1	3	1
2	2	4	2

EXHIBIT No. 902

[Chart based on following statistical data appears in text on p. 5217]

ASPHALTED FELT-BASE FLOOR COVERING AND LINOLEUM, 1937

Each of the 4 products in the Asphalted Felt-Base Floor covering industry are classified into 10% intervals according to the proportion of the total value of that product contributed by the leading company, (the leading company being selected on the basis of value of product). The number of products and the total value represented by them in each interval is expressed in percentage terms on this chart. On the vertical scale 100.0 percent for the number of products equals 4 and for the value of products equals \$35,480,723.

Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products	Percent of U. S. total production represented by leading company	Percent of total number of products	Percent of value of products
Under 10.0%.....			30.0 to 39.9%.....	75	¹ 100.0
10.0 to 19.9%.....			40.0 to 49.9%.....		
20.0 to 29.9%.....	25		50.0 to 59.9%.....		

¹ Includes value of one product, classified in the preceding group to avoid disclosure of operations of individual establishments.

"EXHIBIT No. 903," appears in text on p. 5218

EXHIBIT No. 904

Distribution Of Products In Certain Building Materials Industries, Classified According To The Proportion Of The Leading Company In U. S. Total Production 1937

Percent of U. S. total represented by leading company	Products		Value of products	
	Number	Percent of total	Amount	Percent
Under 10.....	19	17.2	\$184,973,066	8.8
10.0-19.9.....	67	25.4	792,085,401	37.5
20.0-29.9.....	48	18.2	230,170,666	10.9
30.0-39.9.....	51	19.3	322,424,790	15.3
40.0-49.9.....	43	16.3	313,982,798	14.9
50.0-59.9.....	23	8.7	248,599,797	11.8
60 and over.....	13	4.9	17,291,121	0.8
Total.....	264	100.0	2,109,527,639	100.0
Products Not Analyzed.....	11	-----	45,459,209	-----
U. S. Total.....	275	-----	2,154,986,848	-----

¹ Value of one product included in 10-19.9% group to prevent disclosure.

² Value of one product included in 30-39.9% group to prevent disclosure.

³ Value of one product included in 50-59.9% group to prevent disclosure.

⁴ Value of one product included in 40-49.9% group to prevent disclosure.

⁵ Value of one product included in 20-29.9% group to prevent disclosure.

EXHIBIT No. 905

[Chart based on following statistical data appears in text on p. 5222]

COMMON BRICK INDUSTRY, 1937

Description of the industry.—Common Brick is a product classified by the Census in the Clay-Products industry. Although the Census of Manufactures usually confined its canvass to establishments with a yearly output valued at \$5,000 or more, reports are obtained for all establishments in the Clay-Products industry.

The District of Columbia industrial area includes the cities of Washington, D. C. and Alexandria, Va., the Counties of Montgomery and Prince Georges in Md., and Fairfax and Arlington in Va. The industrial areas, as defined by the Bureau of the Census, are as follows: Philadelphia-Camden area: Bucks, Chester, Delaware, Montgomery, and Philadelphia Counties, Pa.; Burlington, Camden, and Gloucester Counties, N. J. San Francisco-Oakland area: Alameda, Contra Costa, Marin, San Francisco, and San Mateo Counties. Los Angeles area: Los Angeles County. New York City-Newark-Jersey City area: Bronx, Kings, New York, Queens, Richmond, and Westchester Counties, N. Y.; Bergen, Essex, Hudson, Middlesex, Passaic, and Union Counties, N. J. The four leading companies have been selected on the basis of value of product.

Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937

Industrial area	Production of all companies in area		Production of four leading cos. in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
District of Columbia.....	(1)	(1)	(1)	(1)	3
Philadelphia:					
Quantity.....	47,116	1.4	29,269	62.1	-----
Value.....	\$622,861	1.8	\$394,492	63.3	10
San Francisco.....	(1)	(1)	(1)	(1)	2
Los Angeles:					
Quantity.....	81,920	2.5	(1)	(1)	7
Value.....	\$647,598	1.9	-----	-----	-----
New York City:					
Quantity.....	89,994	2.8	(1)	(1)	7
Value.....	\$1,034,380	3.4	-----	-----	-----

¹ Withheld to avoid disclosure of operations of individual establishments.

"EXHIBIT No. 906," appears in text on p. 5223

"EXHIBIT No. 907," appears in text on p. 5224

"EXHIBIT No. 908," appears in text on p. 5225

EXHIBIT No. 909

[Charts based on following statistical data "Exhibits Nos. 906, 907, 908" appear in text on pp. 5223-5225]

PLANING MILL INDUSTRY, 1937

Description of the industry.—This industry—"Planing-Mill Products (Including General Millwork), Made in Planing Mills not Connected with Sawmills" embraces "independent" planing mills; that is, planing mills not operated in conjunction with sawmills. (Planing mills operated in conjunction with sawmills are classified in the Lumber and Timber Products industry.) The principal planing-mill products are dressed lumber, sash, doors, frames, interior woodwork, and molding.

The Bureau of the Census reports that some of the planing-mill operators, including several of the more important ones, failed to supply data in regard to the principal classes of planing-mill products manufactured. This necessitated in some cases the making of estimates and in others the inclusion of the data for the total output of the establishments in question in the figure for "Miscellaneous mill work and millwork not reported by kind." It is therefore probable that the figures and data presented here for doors, sash, windows, and door-frames do not represent complete totals. The four leading companies have been chosen on the basis of value of product.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in selected areas in the United States: 1937*

Name of product	Production of all companies in area		Production of four leading companies in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
Chicago area: ¹					
Doors:					
For general construction:					
Pine:					
Number.....	25, 013		15, 600	62. 4	33
Value.....	\$141, 854	6. 5	\$88, 000	62. 3	
Douglas fir:					
Number.....	1, 432		(2)		
Value.....	\$8, 171	. 4	(2)		5
Hardwood:					
Number.....	5, 760		4, 650	80. 7	
Value.....	\$49, 244	2. 3	\$36, 850	74. 8	20
Other:					
Number.....	(2)		(2)		
Value.....	(2)	(2)	(2)		2
For garages:					
Number.....	(2)		(2)		
Value.....	(2)	(2)	(2)		12
Other:					
Number.....	(2)		(2)		
Value.....	(2)	(2)	(2)		8
Sash:					
Number.....	492, 318		320, 067	65. 0	
Value.....	\$626, 009	28. 9	\$420, 074	67. 1	32
Window and door frames:					
Number.....	269, 529		155, 422	57. 7	
Value.....	\$858, 885	29. 6	\$495, 891	57. 7	40

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies in area		Production of four leading companies in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
Milwaukee area: ^a					
Doors:					
For general construction:					
Pine:					
Number.....	88, 237		70, 452	79.8	
Value.....	\$375, 753	37.4	\$294, 213	78.3	18
Douglas fir:	(¹)	(²)	(²)		1
Hardwood:					
Number.....	11, 206		8, 349	74.5	
Value.....	\$71, 192	7.1	\$50, 459	70.9	13
Other:	(²)	(²)	(²)		3
For garages:					
Number.....	115		115	100.0	
Value.....	\$760	.1	\$760	100.0	3
Other:					
Number.....	(²)		(²)		
Value.....	(²)	(²)	(²)		4
Sash:					
Number.....	493, 182		396, 891	80.5	
Value.....	\$298, 719	29.8	\$203, 060	68.0	18
Window and door frames:					
Number.....	60, 029		32, 784	54.6	
Value.....	\$196, 953	19.6	\$103, 953	52.8	17
Los Angeles area: ^a					
Doors:					
For general construction:					
Pine:					
Number.....	229, 864		147, 008	63.9	
Value.....	\$850, 332	(²)	\$547, 790	64.4	33
Douglas fir:					
Number.....	106, 103		75, 839	71.5	
Value.....	\$368, 793	(²)	\$256, 521	69.6	18
Hardwood:					
Number.....	9, 286		8, 100		
Value.....	\$74, 556	(²)	\$65, 776		17
Other:					
Number.....	(²)		(²)		
Value.....	(²)	(²)	(²)		4
For garages:					
Number.....	13, 321		12, 809	96.1	
Value.....	\$217, 814	(²)	\$212, 839	97.7	9
Other: Value.....	\$31, 756	(²)	(²)		6
Sash:					
Number.....	1, 116, 672		739, 250	66.2	
Value.....	\$1, 034, 579	(²)	\$517, 249	50.0	38
Window and door frames:					
Number.....	58, 641		18, 795	32.1	
Value.....	\$183, 413	(²)	\$98, 207	52.4	27
San Francisco-Oakland area: ^a					
Doors:					
For general construction:					
Pine:					
Number.....	28, 479		17, 626	61.9	
Value.....	\$128, 165	10.1	\$83, 841	65.4	26
Douglas fir:					
Number.....	30, 237		22, 408	74.1	
Value.....	\$128, 546	10.1	\$99, 425	77.3	20
Hardwood:					
Number.....	3, 749		2, 232	59.5	
Value.....	\$35, 802	2.8	\$20, 560	57.4	18
Other:					
Number.....	21, 004		18, 522	88.2	
Value.....	\$84, 704	6.7	\$71, 136	84.0	13
For garages:					
Number.....	5, 213		2, 200	42.2	
Value.....	\$49, 428	3.9	\$20, 750	42.0	31
Other value.....	\$24, 813	2.0	\$20, 579	82.9	10
Sash:					
Number.....	316, 676		164, 445	51.9	
Value.....	\$400, 190	31.6	\$180, 856	45.2	45
Window and door frames:					
Number.....	147, 738		54, 063	36.6	
Value.....	\$414, 828	32.8	\$157, 390	37.9	53

See footnotes at end of table.

TABLE 1.—*Products by Kind, Quantity, and/or Value for All Companies and for Four Leading Companies in the United States: 1937—Continued*

Name of product	Production of all companies in area		Production of four leading companies in area		Total number of companies in area
	Amount	% of area total for all products in industry	Amount	% of total for all areas	
Kansas City area: ⁶					
Doors:					
For general construction:					
Pine:					
Number.....	5,141		(2)		
Value.....	\$25,397	18.1	(2)		6
Douglas fir:					
Number.....	(2)		(2)		
Value.....	(2)		(2)		3
Hardwood:					
Number.....	659		(2)		
Value.....	\$6,830	4.9	(2)		6
Other.....	(2)		(2)		2
For garages:					
Number.....	292		(2)		
Value.....	\$3,569	2.5	(2)		5
Other.....	(2)		(2)		2
Sash:					
Number.....	97,957		(2)		
Value.....	\$83,302	59.4	(2)		6
Window and door frames:					
Number.....	4,598		(2)		
Value.....	\$14,507	10.4	(2)		6
Seattle-Tacoma area: ⁷					
Doors:					
For general construction:					
Pine:					
Number.....	2,790		2,790	100.0	
Value.....	\$8,320	.1	\$8,320	100.0	4
Douglas fir:					
Number.....	4,016,077		3,114,368	77.5	
Value.....	\$6,493,612	88.4	\$4,971,217	76.6	22
Hardwood:					
Number.....	10,959		8,403	76.7	
Value.....	\$64,197	.9	\$50,950	79.3	12
Other.....	(2)		(2)		3
Sash:					
Number.....	934,806		(2)		
Value.....	\$397,939	5.4	(2)		20
Window and door frames:					
Number.....	71,233		40,600	57.0	
Value.....	\$156,034	2.1	\$90,700	58.1	16

¹ Includes Cook, DuPage, Kane, Lake and Will counties Illinois; Lake County, Indiana.² Withheld to avoid approximate disclosure of individual operations.³ Includes Kenosha, Milwaukee and Racine counties Wisconsin.⁴ Includes Los Angeles County, California.⁵ Includes Alameda, Contra Costa, Marin, San Francisco and San Mateo counties California.⁶ Includes Clay and Jackson counties Missouri; Wyandotte County, Kansas.⁷ Includes King and Pierce counties Washington.

Source: Census of Manufactures, 1937.

EXHIBIT No. 910

[Chart based on following statistical data appears in text on p. 5226]

SELECTED CONSTRUCTION MATERIALS—1935 AND 1937

The table presents data for each of the three most important products from the following industries: Roofing, built-up and roll; asphalted shingles: Clay products and nonclay refractories: Paints and varnishes: Gypsum products; wallboard and plaster (except gypsum), building insulation, and floor composition: Plumbers' supplies: Steel-works and rolling-mill products: Asphalted-felt-base floor covering; linoleum: Heating and cooking apparatus. The four leading companies have been selected on the basis of value of product.

Relative Production of the Four Leading Companies Manufacturing Specified Products

Product	Production of All Companies manufacturing Specified Product (millions of dollars)		Relative Production of the Four Leading Companies Manufacturing Specified Product (Percent)	
	1935	1937	1935	1937
Asphalt strip shingles	22	29	44.5	41.6
Asphalt smooth-roll roofing	15	17	40.6	33.3
Asphalt grit-roll roofing	11	12	48.7	35.9
Fittings and valves	45	70	59.2	63.5
Gas cooking stoves and ranges (porcelain enamels with ovens)	41	58	35.3	36.1
Thermostats	16	25	64.7	75.1
Common brick	18	34	7.5	13.3
Fireclay brick, block and tile, except high alumina	19	33	43.0	12.8
Sewer pipes	9	14	33.2	5.4
Ready mixed paints in oil	63	79	25.9	28.0
Enamel, oil, ester-gum and natural resin, varnish	33	39	34.1	29.5
Ready-mixed wall paints and mill white	30	35	32.3	32.8
Insulation board, not gypsum	10	21	86.0	87.0
Gypsum neat plaster	8	11	79.7	84.7
Gypsum plaster board & lath	3	9	86.1	90.7
Enameled-iron bathtubs	10	16	80.2	73.4
Enameled-iron sinks	6	10	75.3	63.5
Galvanized iron range boilers (18-192 gallons capacity)	5	6	48.2	41.5
Structural shapes	42	111	88.9	(1)
Inlaid linoleum	13	20	100.0	100.0
Asphalted felt base rugs	8	18	100.0	73.5
Asphalted felt base floor covering 8/4	10	10	(1)	69.2

¹ Concentration not shown to avoid disclosure of individual operations.

EXHIBIT No. 911

Number of National and Regional Trade Associations in the Construction Field Classified by Major Industrial Groups (1938)

Industrial group	Number associations	Industrial group	Number associations
Total	185	Products of coal, petroleum and natural gas	3
Building construction—general contractors	1	Stone, clay and glass products	28
General contractors—other than building	2	Iron and steel and their products	42
Special trade contractors	11	Transportation equipment	1
Nonmetallic mining and quarrying	2	Nonferrous metals and their products	1
Textile products	3	Electrical apparatus and supplies	5
Lumber and timber basic products	31	Machinery (except electrical)	9
Finished lumber products	3	Miscellaneous manufacturing	1
Paper and allied products	1	Wholesale trade	23
Chemicals and allied products	3	Retail hardware	8
		Retail lumber and building supplies	7

EXHIBIT No. 912

Number of National and Regional Trade Associations in the Construction Field Classified According to the Percent Which Their Membership Represents of the Total Number of Firms in the Industries Covered by Them¹ (1937-1938)

Percent of industry firms represented ²	All associations		Associations of producers		Associations of distributors		Associations of contractors	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
All associations.....	169	100.0	121	100.0	36	100.0	12	100.0
Less than 20.....	30	17.8	21	17.4	3	8.3	6	50.1
20-39.....	29	17.2	23	19.0	3	8.3	3	25.0
40-59.....	32	18.9	21	17.4	10	27.8	1	8.3
60-79.....	50	29.7	34	28.0	15	41.7	1	8.3
80-100.....	28	16.4	22	18.2	5	13.9	1	8.3

¹ Based on returns from 169 of 185 national and regional interstate trade associations defined within the construction field. In some cases the data cover the year 1937, in others, 1938.

² Industry means the group defined by the association for voting membership purposes.

EXHIBIT No. 913

Number of National and Regional Trade Associations in the Construction Field Classified According to the Percent Which Their Members' Volume of Business Represents of the Total Volume of Business in the Industries Covered by Them¹ (1937-1938)

Percent of industry volume represented ²	All associations		Associations of producers		Associations of distributors		Associations of contractors	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
All associations.....	164	100.0	120	100.0	31	100.0	13	100.0
Less than 20.....	3	1.8	1	0.8	1	3.2	1	7.7
20-39.....	10	6.1	7	5.8	2	6.4	1	7.7
40-59.....	25	15.2	17	14.2	4	12.9	4	30.7
60-79.....	56	34.2	38	31.7	13	42.0	5	38.5
80-100.....	70	42.7	57	47.5	11	35.5	2	15.4

¹ Based on returns from 164 of 185 national and regional interstate trade associations defined within the construction field. In some cases the data cover the year 1937, in others, 1938.

² Industry means the group defined by the association for voting membership purposes. Volume usually was measured in terms of production, sales, or shipments; capacity and employment were used in a few cases.

EXHIBIT No. 914

Number of National and Regional Trade Associations in the Construction Field Classified According to the Amount of Their Yearly Expenditures¹ (1937-1938)

Amount of yearly expenditures ²	All associations		Associations of producers		Associations of distributors		Associations of contractors	
	Number	Percent of total	Number	Percent of total	Number	Percent of total	Number	Percent of total
All associations.....	182	100.0	131	100.0	38	100.0	13	100.0
Less than \$2,500.....	21	11.6	15	11.4	5	13.2	1	7.7
2,500-4,999.....	14	7.7	11	8.4	2	5.3	1	7.7
5,000-9,999.....	25	13.7	19	14.5	5	13.2	1	7.7
10,000-19,999.....	42	22.9	26	19.8	12	31.5	4	30.7
20,000-49,999.....	46	25.2	31	23.8	11	28.9	4	30.8
50,000-99,999.....	14	7.7	11	8.4	2	5.3	1	7.7
100,000-249,999.....	13	7.2	11	8.4	1	2.6	1	7.7
\$250,000 and over.....	7	4.0	7	5.3				

¹ Based on returns from 182 of 185 national and regional interstate trade associations defined within the construction field.

² Expenditures are for fiscal years ending in some cases in 1937, in others, in 1938.

EXHIBIT No. 915

[Chart based on following statistical data appears in text on p. 5232]

Wholesale Prices—Selected Groups of Commodities

[Index Numbers, 1929=100.0]

ALL COMMODITIES

Date	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929-----	100.5	100.2	100.7	100.2	99.3	99.9	100.9	101.1	100.9	100.1	98.4	98.1
1930-----	97.3	96.1	94.7	94.6	93.3	91.2	88.8	88.4	88.4	87.1	85.2	83.4
1931-----	81.9	80.6	79.8	78.7	77.1	75.9	75.7	75.5	74.7	73.8	73.7	72.0
1932-----	70.5	69.3	68.9	68.3	67.0	66.4	67.0	67.5	67.9	66.9	66.2	64.8
1933-----	63.2	62.3	62.8	63.2	65.9	68.6	73.0	74.1	75.1	75.2	75.3	75.0
1934-----	76.4	77.6	77.7	77.3	77.8	78.9	79.1	80.7	81.6	80.7	80.5	81.0
1935-----	82.6	83.2	83.1	83.8	83.8	83.3	82.9	83.7	83.9	83.9	84.0	84.3
1936-----	84.0	83.9	82.8	82.8	81.8	82.5	84.0	85.2	85.3	85.5	86.5	88.6
1937-----	90.4	90.9	92.5	92.6	91.9	91.7	92.4	91.7	91.6	89.9	87.3	85.7
1938-----	84.3	83.2	83.0	81.9	81.0	81.1	81.3	80.4	80.6	80.1	80.1	79.8
1939-----	79.5	79.5	79.2	78.5	78.5	78.2	77.9	77.6	82.2	82.9	-----	-----

PRODUCERS' GOODS FOR CAPITAL EQUIPMENT

Date	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929-----	99.1	100.1	101.9	101.5	100.7	100.5	100.5	100.3	100.1	99.5	98.5	98.2
1930-----	96.8	96.4	95.9	94.6	92.3	90.6	89.2	88.3	87.5	86.4	86.2	86.2
1931-----	85.2	84.9	84.6	83.7	82.9	82.1	81.8	81.2	80.9	79.9	79.4	78.6
1932-----	77.9	77.1	76.9	76.7	76.3	75.9	75.7	76.2	75.8	75.6	75.2	74.6
1933-----	73.5	73.5	72.7	73.3	74.2	76.2	78.3	79.0	79.7	80.4	80.7	81.3
1934-----	82.3	83.5	83.8	84.9	86.5	85.6	84.6	84.4	84.2	83.8	83.7	83.7
1935-----	83.6	83.6	83.3	83.4	83.8	84.0	83.5	83.6	83.8	84.1	85.0	84.9
1936-----	85.0	85.2	85.1	85.0	85.0	84.9	86.1	86.2	86.4	87.0	88.1	89.9
1937-----	92.1	93.1	98.3	99.5	98.6	98.6	99.0	99.4	99.3	98.9	97.7	97.2
1938-----	96.3	95.5	95.4	95.2	95.8	95.2	93.5	93.8	94.1	94.4	94.2	93.7
1939-----	93.8	93.7	93.8	93.8	93.4	92.8	92.9	93.2	96.4	97.5	-----	-----

PRODUCERS' GOODS FOR BUILDING MATERIALS

Date	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929-----	100.4	100.7	101.6	101.5	100.6	100.3	100.2	100.2	100.2	99.8	99.1	99.0
1930-----	99.1	98.9	98.5	97.7	96.6	94.7	93.5	92.8	92.0	91.2	90.4	89.8
1931-----	89.2	88.3	87.8	86.8	85.8	85.1	84.0	83.5	82.9	82.1	81.7	81.2
1932-----	80.3	79.3	78.8	78.4	77.3	76.2	75.7	75.9	76.9	76.9	77.0	76.8
1933-----	76.3	76.0	76.5	76.6	77.8	80.6	84.4	86.2	87.0	87.8	88.6	88.9
1934-----	87.9	88.1	88.1	88.4	89.3	89.5	88.7	87.9	87.4	87.1	87.1	87.0
1935-----	86.9	86.7	86.6	86.3	86.6	86.6	86.7	87.0	87.6	87.9	87.9	87.8
1936-----	87.7	87.6	87.2	87.4	87.6	87.8	88.3	88.6	88.7	88.7	89.3	91.1
1937-----	93.8	95.2	98.8	99.5	100.0	99.9	99.6	99.6	99.4	98.3	96.8	95.6
1938-----	95.1	94.5	94.5	94.2	93.7	92.8	91.9	91.8	92.0	92.3	91.9	91.9
1939-----	91.7	91.6	91.7	91.7	91.5	91.5	91.4	91.5	92.7	94.4	-----	-----

PRODUCERS' GOODS FOR HUMAN CONSUMPTION

Date	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1929-----	101.2	101.1	103.0	102.0	98.9	99.2	102.0	101.4	101.0	98.9	95.8	95.4
1930-----	95.3	93.1	90.9	90.7	88.7	85.0	81.3	81.7	80.6	77.7	74.9	73.4
1931-----	72.9	70.2	69.8	68.6	65.8	63.8	63.3	62.0	59.6	58.1	59.2	57.3
1932-----	56.5	55.1	54.7	53.5	51.0	49.8	51.4	53.0	53.8	51.3	49.5	47.6
1933-----	46.9	46.7	48.6	49.8	55.8	59.5	65.8	65.3	65.5	64.3	64.2	63.7
1934-----	65.9	68.3	68.3	67.6	67.5	69.2	70.2	73.6	75.4	73.1	73.1	75.0
1935-----	77.9	78.6	78.9	79.1	80.1	78.3	77.2	78.5	78.8	79.3	80.5	78.9
1936-----	79.1	78.4	77.7	77.6	75.6	76.2	80.0	82.4	82.6	82.5	83.8	88.2
1937-----	91.4	91.2	93.7	95.1	93.3	91.5	92.5	89.4	87.7	82.6	77.6	75.4
1938-----	77.4	76.4	76.2	74.1	72.8	72.6	73.8	72.0	71.7	70.9	70.9	70.7
1939-----	71.8	71.7	71.8	71.0	71.8	70.7	69.1	68.4	76.6	77.0	-----	-----

¹ Adjusted.

Source: National Bureau of Economic Research.

EXHIBIT No. 916

[Chart based on following statistical data appears in text on p. 5233]

U. S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

Weighted Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities

[1926=100.0]

550 price series 1913-1925. 784 price series 1926—.

Year and month	Building materials							
	Brick and tile	Cement	Lumber	Paint and paint materials	Plumbing and heating	Structural steel	Other building materials	All building materials
1925								
Av. for year...	100.1	102.6	100.6	109.3	-----	102.2	100.4	101.7
January.....	100.5	103.1	103.2	111.7	-----	107.2	102.2	103.8
February.....	100.6	103.2	106.7	111.6	-----	104.7	102.7	105.2
March.....	100.4	103.2	103.3	108.6	-----	107.2	101.5	103.3
April.....	100.8	103.2	99.5	105.6	-----	104.7	100.5	101.1
May.....	100.9	103.2	100.8	107.6	-----	102.1	99.1	101.4
June.....	99.9	103.2	96.9	106.1	-----	102.1	99.3	99.6
July.....	99.7	103.2	96.8	103.6	-----	102.1	99.5	99.3
August.....	99.5	103.2	99.4	106.7	-----	98.3	99.9	100.6
September.....	99.5	103.2	99.0	112.8	-----	99.6	100.0	101.1
October.....	99.4	101.7	99.7	113.7	-----	99.6	99.9	101.3
November.....	100.0	100.4	100.5	113.5	-----	99.6	99.8	101.5
December.....	100.1	100.4	102.2	109.6	-----	99.6	100.2	101.9
1926								
Av. for year...	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
January.....	101.4	100.4	103.0	103.6	97.8	99.6	99.5	101.3
February.....	101.2	100.4	102.7	101.5	97.3	99.6	99.6	100.9
March.....	101.2	100.4	102.3	99.2	97.9	99.6	99.7	100.5
April.....	101.1	100.4	100.9	97.5	97.9	99.6	99.6	99.8
May.....	100.8	100.4	100.1	95.8	98.1	99.6	99.5	99.2
June.....	99.9	100.4	99.4	98.0	97.5	94.5	99.6	99.1
July.....	99.9	100.4	98.8	100.6	97.6	99.6	99.4	99.4
August.....	98.8	99.9	98.4	101.9	100.0	99.6	100.9	100.0
September.....	97.8	99.4	98.4	101.7	101.6	102.1	100.7	100.0
October.....	99.4	99.4	98.1	100.7	103.3	102.1	100.8	100.0
November.....	99.3	99.4	99.8	100.4	105.4	102.1	100.6	100.5
December.....	99.3	99.4	98.7	98.8	105.6	102.1	100.2	99.9
1927								
Av. for year...	95.7	96.7	93.1	96.3	92.0	94.7	95.4	94.7
January.....	98.1	98.3	96.8	98.2	99.4	102.1	99.2	98.3
February.....	96.7	96.5	96.2	98.1	92.9	99.6	98.6	97.2
March.....	95.4	96.5	95.4	98.0	89.3	97.0	98.5	96.5
April.....	95.1	96.5	95.4	98.0	89.3	97.0	98.1	96.5
May.....	96.1	96.5	95.6	97.7	89.1	97.0	96.9	96.1
June.....	96.1	96.5	95.3	97.2	90.6	94.5	94.9	95.3
July.....	96.0	96.5	94.5	96.4	91.2	90.7	94.6	94.7
August.....	96.0	96.5	92.9	96.8	92.6	91.9	94.2	94.3
September.....	95.8	96.5	91.7	95.6	92.7	93.2	93.4	93.5
October.....	94.9	96.5	91.7	94.0	92.8	91.9	93.2	93.1
November.....	94.8	96.5	90.1	93.2	92.2	89.4	91.7	91.9
December.....	95.4	96.5	89.1	93.2	92.2	91.9	91.2	91.6
1928								
Av. for year...	95.6	95.9	90.5	93.1	95.1	95.2	96.7	94.1
January.....	95.5	96.5	89.5	94.0	90.8	91.9	92.6	92.2
February.....	95.3	96.5	89.8	93.1	90.8	94.5	92.5	92.2
March.....	95.4	96.5	89.8	92.6	92.2	97.0	91.5	92.0
April.....	95.8	96.5	88.3	92.6	92.5	97.0	95.5	92.8
May.....	95.7	96.5	88.5	92.8	92.7	95.8	97.3	93.5
June.....	96.0	96.5	88.9	93.5	95.1	94.5	99.0	94.4
July.....	96.0	96.5	89.7	93.7	97.4	94.5	98.5	94.7

*Weighted Index Numbers of Wholesale Prices by Groups and Subgroups of
Commodities—Continued*

[1926=100.0]

Year and month	Building materials							
	Brick and tile	Cement	Lumber	Paint and paint materials	Plumbing and heating	Structural steel	Other building materials	All building materials
1928								
August.....	95.6	96.5	90.7	93.3	97.5	94.5	98.6	94.9
September.....	96.6	94.6	91.5	92.7	97.1	94.5	98.6	94.9
October.....	95.5	94.6	92.0	92.9	97.2	94.5	98.8	95.2
November.....	95.4	94.6	92.9	93.8	97.5	97.0	99.5	95.8
December.....	95.5	94.6	93.7	93.1	100.1	97.0	98.2	95.8
1929								
A v. for year...	94.3	91.8	93.8	94.9	95.0	98.1	97.7	95.4
January.....	95.1	94.6	93.1	92.7	99.7	97.0	98.0	95.5
February.....	94.9	94.6	95.0	92.6	96.7	97.0	98.4	95.9
March.....	94.7	94.6	96.4	92.7	96.7	97.0	99.6	96.7
April.....	95.4	94.6	95.2	92.0	97.0	97.0	99.4	96.3
May.....	95.3	94.6	94.2	92.3	96.0	99.6	97.5	95.5
June.....	93.1	94.6	94.0	92.6	95.7	99.6	97.4	95.2
July.....	92.9	94.6	93.3	94.5	93.6	99.6	97.4	95.1
August.....	93.3	92.0	93.5	95.8	94.3	99.6	97.3	95.2
September.....	94.8	86.0	94.9	99.1	93.4	99.6	97.2	95.8
October.....	94.0	85.6	95.6	99.8	92.2	97.0	97.1	95.9
November.....	93.9	86.6	91.8	98.0	92.2	97.0	96.7	94.4
December.....	93.9	89.2	91.9	96.6	92.2	97.0	96.9	94.4
1930								
A v. for year...	89.8	91.8	85.8	90.5	88.6	87.3	93.3	89.9
January.....	93.1	90.4	92.3	95.4	92.2	97.0	96.9	94.3
February.....	92.6	92.7	91.5	94.8	93.2	91.9	96.8	94.0
March.....	92.6	92.7	91.2	94.3	94.1	91.9	96.7	93.9
April.....	92.0	92.7	91.3	93.9	96.2	91.9	95.5	93.5
May.....	90.6	92.2	89.6	92.8	96.2	91.9	94.5	92.4
June.....	88.5	91.7	85.6	92.4	88.3	86.8	93.0	89.9
July.....	88.6	91.7	83.6	91.5	83.6	84.3	91.9	88.5
August.....	88.6	91.7	81.7	90.0	83.5	84.3	91.8	87.7
September.....	87.5	91.7	81.1	86.8	83.4	81.7	92.3	87.1
October.....	87.7	91.7	79.8	85.4	83.4	81.7	91.8	86.3
November.....	89.4	91.1	80.2	84.7	83.3	81.7	89.2	85.5
December.....	87.1	90.6	78.2	83.7	85.3	81.7	89.3	84.8
1931								
A v. for year...	83.6	79.4	69.5	79.4	84.7	83.1	84.8	79.2
January.....	87.0	90.3	76.4	83.2	87.4	83.0	87.8	83.8
February.....	86.3	87.9	74.0	80.5	86.6	84.3	87.8	82.5
March.....	85.0	84.1	74.7	81.4	86.6	84.3	87.6	82.5
April.....	83.9	81.0	73.4	81.2	86.6	84.3	86.9	81.5
May.....	83.7	79.7	69.4	80.2	85.6	84.3	86.3	80.0
June.....	83.7	77.7	68.5	80.0	86.6	84.3	85.4	79.3
July.....	83.4	75.8	67.2	79.6	86.8	84.3	83.7	78.1
August.....	82.9	75.8	66.9	78.4	83.8	81.7	83.7	77.6
September.....	82.6	75.8	66.9	77.6	82.6	81.7	82.6	77.0
October.....	82.6	75.1	65.2	77.0	81.6	81.7	82.0	76.1
November.....	81.4	74.6	65.9	77.5	81.4	81.7	81.9	76.2
December.....	80.0	74.6	65.8	76.6	79.9	81.7	81.5	75.7
1932								
A v. for year...	77.3	77.2	58.5	71.1	66.8	80.9	79.5	71.4
January.....	79.3	75.2	65.6	75.4	74.1	77.3	81.0	74.8
February.....	79.3	75.3	62.9	75.1	65.8	77.9	80.2	73.4
March.....	79.3	75.0	61.5	75.1	64.4	79.7	80.6	73.2
April.....	78.4	75.0	60.0	74.7	64.4	81.7	80.2	72.5
May.....	77.4	75.0	59.5	73.9	64.4	81.7	78.2	71.5
June.....	76.1	77.1	57.6	73.3	66.7	81.7	77.6	70.8
July.....	75.9	77.3	56.9	66.8	67.1	81.7	77.9	69.7
August.....	75.2	79.0	55.5	67.2	67.1	81.7	78.3	69.6
September.....	75.4	79.0	56.3	68.2	66.8	81.7	79.9	70.5
October.....	75.3	79.0	56.6	68.3	67.5	81.7	80.0	70.7
November.....	75.4	79.0	56.6	68.5	67.5	81.7	80.1	70.7
December.....	75.1	81.1	56.5	68.1	67.5	81.7	80.1	70.8

Weighted Index Numbers of Wholesale Prices by Groups and Subgroups of Commodities—Continued

[1926=100.0]

Year and month	Building materials							All build- ing mate- rials
	Brick and tile	Cement	Lumber	Paint and paint ma- terials	Plumbing and beat- ing	Structural steel	Other building materials	
1933								
Av. for year...	79.2	86.1	70.7	73.3	67.1	83.1	82.7	77.0
January.....	74.9	81.2	55.9	68.1	62.8	81.7	79.4	70.1
February.....	75.1	81.8	56.4	68.0	59.4	81.7	78.5	69.8
March.....	74.9	81.8	57.8	68.4	59.4	81.7	78.4	70.3
April.....	75.0	81.8	57.9	68.9	59.4	81.7	77.9	70.2
May.....	75.2	81.8	59.6	70.7	61.3	81.7	78.8	71.4
June.....	77.0	81.8	67.4	71.9	67.4	81.7	80.6	74.7
July.....	78.2	88.2	75.9	77.9	69.4	81.7	83.3	70.5
August.....	81.5	90.3	79.4	77.5	70.3	81.7	85.0	81.3
September.....	82.6	90.8	82.0	77.3	74.7	82.4	85.9	82.7
October.....	84.6	91.2	84.2	76.1	74.7	86.8	87.1	83.9
November.....	84.7	91.2	86.5	76.3	73.7	86.8	88.4	84.9
December.....	85.7	91.2	88.0	77.5	72.5	86.8	88.6	85.6
1934								
Av. for year...	90.2	93.2	84.5	79.5	72.6	90.8	90.3	86.2
January.....	86.6	93.9	87.4	78.4	72.5	86.8	89.8	86.3
February.....	87.2	93.9	87.3	79.3	72.7	86.8	90.3	86.6
March.....	88.5	93.9	86.4	79.7	72.7	86.8	89.9	86.4
April.....	90.7	93.9	87.2	79.8	76.2	86.8	90.4	86.7
May.....	91.2	89.4	85.9	80.3	75.0	94.5	92.0	87.3
June.....	91.1	93.9	86.3	80.3	75.1	94.5	92.0	87.8
July.....	91.3	93.9	85.3	79.8	75.0	92.5	90.9	87.0
August.....	91.3	93.9	81.8	79.9	75.0	92.0	90.0	85.8
September.....	91.3	93.9	82.3	79.5	71.6	92.0	89.8	85.6
October.....	91.2	93.9	82.0	79.4	68.1	92.0	89.3	85.2
November.....	91.2	93.9	81.2	78.8	68.8	92.0	89.4	85.0
December.....	91.2	93.9	81.2	78.8	68.8	92.0	89.8	85.1
1935								
Av. for year...	89.4	95.3	81.1	79.8	68.9	92.0	90.1	85.3
January.....	91.1	93.9	79.9	79.0	68.0	92.0	90.3	84.9
February.....	90.6	93.9	80.5	78.8	67.1	92.0	90.3	85.0
March.....	90.2	94.4	79.9	79.4	67.2	92.0	90.1	84.9
April.....	89.7	94.9	79.9	79.2	67.1	92.0	89.4	84.6
May.....	89.3	94.9	79.8	79.9	67.1	92.0	89.8	84.8
June.....	89.2	94.9	81.6	79.8	66.2	92.0	90.0	85.3
July.....	89.1	94.9	81.7	79.1	68.8	92.0	89.7	85.2
August.....	89.0	94.9	82.0	78.6	71.1	92.0	90.1	85.4
September.....	88.8	94.9	82.1	80.8	71.1	92.0	90.3	85.9
October.....	88.3	95.5	82.0	81.9	71.1	92.0	90.5	86.1
November.....	88.3	95.5	81.8	80.3	71.1	92.0	90.6	85.8
December.....	88.9	95.5	81.5	80.0	71.1	92.0	90.0	85.5
1936								
Av. for year...	88.7	95.5	84.5	80.1	75.0	95.0	90.2	86.7
January.....	88.4	95.5	82.2	79.6	71.7	92.0	90.2	85.7
February.....	88.4	95.5	82.3	79.5	73.8	92.0	89.5	85.5
March.....	88.0	95.5	82.6	79.2	73.8	92.0	88.5	85.3
April.....	89.0	95.5	83.2	79.3	73.8	92.0	89.1	85.7
May.....	88.8	95.5	83.0	78.8	73.8	92.0	89.9	85.8
June.....	89.2	95.5	82.1	79.5	73.8	92.5	90.1	85.8
July.....	89.2	95.5	83.7	80.4	76.5	97.1	90.2	86.7
August.....	89.1	95.5	83.8	81.0	76.5	97.1	90.3	87.1
September.....	89.0	95.5	84.9	80.6	76.5	97.1	90.4	87.3
October.....	88.3	95.5	86.1	80.2	76.6	97.1	90.9	87.7
November.....	88.8	95.5	86.6	80.5	76.7	97.1	92.6	87.7
December.....	88.5	95.5	89.6	82.4	76.7	101.7	92.6	89.5

*Weighted Index Numbers of Wholesale Prices by Groups and Subgroups of
Commodities—Continued*

[1926=100.0]

Year and month	Building materials							
	Brick and tile	Cement	Lumber	Paint and paint ma- terials	Plumbing and heat- ing	Struc- tural steel	Other building materials	All build- ing mate- rials
1937								
Av. for year...	93.5	95.5	99.0	83.4	78.8	113.2	99.1	95.2
January.....	89.7	95.5	93.0	83.7	77.1	104.7	93.9	91.3
February.....	91.0	95.5	99.0	83.4	77.4	104.7	95.0	93.3
March.....	91.8	95.5	102.1	83.9	77.6	112.9	98.9	95.9
April.....	94.9	95.5	103.0	83.9	78.7	114.9	99.9	96.7
May.....	95.0	95.5	103.0	83.7	78.7	114.9	101.3	97.2
June.....	95.0	95.5	102.2	83.6	78.7	114.9	101.1	96.9
July.....	95.4	95.5	101.3	83.9	78.7	114.9	101.0	96.7
August.....	95.5	95.5	99.5	84.1	78.8	114.9	101.0	96.3
September.....	95.0	95.5	99.0	84.6	80.6	114.9	100.8	96.2
October.....	93.4	95.5	97.3	84.2	80.6	114.9	100.2	95.4
November.....	92.9	95.5	94.8	81.5	79.6	114.9	98.7	93.7
December.....	92.0	95.5	93.8	80.2	79.6	114.9	96.9	92.5
1938								
Av. for year...	91.0	95.5	90.4	81.3	78.5	111.0	92.7	90.3
January.....	91.8	95.5	92.6	80.1	79.6	114.9	95.8	91.8
February.....	91.5	95.5	91.0	79.2	79.6	114.9	95.3	91.1
March.....	91.1	95.5	91.3	82.2	78.9	114.9	94.8	91.5
April.....	90.4	95.5	91.1	81.4	77.2	114.9	94.8	91.2
May.....	90.5	95.5	89.3	80.9	77.2	114.9	94.1	90.4
June.....	90.6	95.5	88.7	80.1	77.2	113.0	93.3	89.7
July.....	90.7	95.5	88.8	80.5	79.5	107.3	91.2	89.2
August.....	90.6	95.5	90.2	80.5	79.2	107.3	91.3	89.4
September.....	90.9	95.5	90.4	80.4	78.5	107.3	91.3	89.5
October.....	91.1	95.5	90.3	81.1	78.5	107.3	91.7	89.8
November.....	91.5	95.5	90.2	80.9	78.7	107.3	89.7	89.2
December.....	91.5	95.5	90.9	81.0	78.7	107.3	89.7	89.4
1939								
Av. for year...								
January.....	92.4		91.7	81.0	78.7	107.3	89.6	89.5
February.....	92.4		92.6	80.5	79.2	107.3	89.3	89.6
March.....	92.5		92.1	81.5	79.3	107.3	89.8	89.8
April.....	93.0		91.5	81.3	79.3	107.3	89.7	89.6
May.....	91.7		91.2	81.6	79.3	107.3	89.6	89.5
June.....	91.1		90.7	82.4	79.3	107.3	89.5	89.5
July.....	90.6		91.8	82.2	79.3	107.3	89.6	89.7
August.....	90.5		91.8	82.1	79.3	107.3	89.5	89.6
September.....	91.0		93.7	84.7	79.3	107.3	90.3	90.9
October.....								
November.....								
December.....								

EXHIBIT No. 917

[Chart based on following statistical data appears in text facing p. 5233]

U. S. DEPARTMENT OF LABOR

BUREAU OF LABOR STATISTICS

Washington

*Wholesale Price Index Numbers (1926=100) for Reinforcing Bars, Billet Steel,
Mill Lengths Per 100 Pounds, f. o. b. Pittsburgh Mills*

	1926	1927	1928	1929	1930	1931	1932	1933 ¹	1934	1935	1936	1937	1938	1939
Year..	100.0	93.7	96.1	101.5	90.8	82.4	78.2	84.5	97.1	99.6	99.6	122.1	107.8	-----
Jan.....	102.9	100.4	90.4	100.4	100.4	85.4	80.3	76.6	91.9	99.6	99.6	109.9	120.1	95.8
Feb.....	100.4	97.9	92.9	100.4	100.4	87.9	75.3	75.4	91.9	99.6	97.1	109.9	120.1	95.8
Mar.....	100.4	95.4	95.4	100.4	100.4	82.8	75.3	71.6	91.9	99.6	95.6	122.1	120.1	95.8
Apr.....	102.9	95.4	95.4	100.4	97.9	87.9	75.3	71.6	91.9	99.6	99.6	125.1	120.1	95.8
May.....	100.4	95.4	94.1	100.4	92.9	82.8	75.3	82.3	99.6	99.6	99.6	125.1	120.1	-----
June.....	95.4	95.4	97.9	102.9	87.9	80.3	75.3	89.4	99.6	99.6	99.6	125.1	111.8	-----
July.....	97.9	91.6	97.9	102.9	87.9	80.3	80.3	89.4	99.6	99.6	99.6	125.1	99.6	-----
Aug.....	97.9	90.4	97.9	100.4	80.3	80.3	80.3	89.4	99.6	99.6	99.6	125.1	98.1	-----
Sept.....	100.4	91.6	97.9	102.9	85.4	80.3	80.3	91.9	99.6	99.6	99.6	125.1	95.8	-----
Oct.....	100.4	90.4	92.9	102.9	85.4	80.3	80.3	91.9	99.6	99.6	99.6	175.1	95.8	-----
Nov.....	100.4	90.4	100.4	102.9	85.4	80.3	80.3	91.9	99.6	99.6	99.6	125.1	95.8	-----
Dec.....	100.4	90.4	100.4	100.4	85.4	80.3	80.3	91.9	99.6	99.6	102.7	120.1	95.8	-----

¹ Mill lengths from 1933 on.

Wholesale Price Division.

mrm.

May 6, 1939.

Copy—PHO—7/5/39.

*Wholesale Price Index Numbers (1926=100) for Red Oak Flooring, No. 1 Common,
²/₃₂ Thickness, 2¼ Face, Average Length 3' Per 1000 Board Feet, f. o. b.
Basing Points*

	1926	1927	1928	1929	1930	1931	1932	1933 ¹	1934	1935	1936	1937	1938	1939
Year..	100.0	87.5	81.3	100.7	66.4	45.3	51.8	67.8	87.5	79.1	75.1	101.0	85.0	-----
Jan.....	115.7	88.5	72.3	94.3	75.5	53.9	51.7	55.8	82.6	83.7	72.5	90.4	92.0	80.5
Feb.....	115.4	83.7	74.6	96.0	72.7	49.2	53.0	55.7	82.6	83.1	73.0	101.2	89.0	82.9
Mar.....	109.9	82.2	73.1	98.4	70.2	45.3	54.2	53.4	87.9	78.9	77.4	102.8	86.9	85.0
Apr.....	105.0	83.5	72.4	104.6	69.1	44.5	51.8	52.4	87.9	78.6	78.9	103.7	83.9	-----
May.....	102.4	99.2	72.1	107.9	70.0	43.7	49.5	56.5	87.9	79.1	77.4	105.2	81.0	-----
June.....	98.3	103.0	73.2	108.8	70.8	43.2	48.6	61.2	87.9	80.2	75.2	105.1	(²)	-----
July.....	94.9	102.8	76.5	107.7	69.6	43.1	47.7	73.0	88.3	83.6	73.2	102.4	(²)	-----
Aug.....	94.0	93.9	81.9	108.3	67.2	43.6	47.0	77.8	88.8	81.8	71.5	102.9	(²)	-----
Sept.....	94.9	85.7	91.8	104.1	63.8	43.7	50.2	79.6	88.8	80.0	70.5	103.7	(²)	-----
Oct.....	93.2	81.2	96.8	102.5	58.9	44.1	54.7	80.3	88.8	75.9	74.4	101.2	79.7	-----
Nov.....	90.0	76.8	94.7	97.9	54.3	45.0	57.2	81.2	88.8	71.9	76.7	100.8	82.6	-----
Dec.....	86.4	72.7	96.2	78.1	54.9	44.6	56.6	82.6	88.8	72.5	80.5	93.6	83.6	-----

¹ 1926 through 1932, index numbers are for white and red combined; 1933 on, red only.² No reports issued.

Wholesale Price Division.

mrm.

May 8, 1939.

Copy—PHO—7/5/39.

Wholesale Price Index Numbers (1926=100) for Plaster, Base Coat, Per Ton, Plant

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939 ¹
Year ..	100.0	99.0	71.9	70.8	100.0	111.5	112.5	112.5	124.5	125.0	125.0	125.0	125.0	-----
Jan.....	100.0	100.0	87.5	62.5	100.0	100.0	112.5	112.5	120.0	125.0	125.0	125.0	125.0	-----
Feb.....	100.0	100.0	87.5	62.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Mar.....	100.0	100.0	87.5	62.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Apr.....	100.0	100.0	75.0	62.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
May.....	100.0	100.0	75.0	62.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
June.....	100.0	100.0	75.0	62.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
July.....	100.0	100.0	62.5	75.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Aug.....	100.0	100.0	62.5	75.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Sept.....	100.0	100.0	62.5	75.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Oct.....	100.0	100.0	62.5	75.0	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Nov.....	100.0	100.0	62.5	87.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----
Dec.....	100.0	87.5	62.5	87.5	100.0	112.5	112.5	112.5	125.0	125.0	125.0	125.0	125.0	-----

¹ Quotation changed to delivered price.

Wholesale Price Division.

hhh.

May 8, 1939.

Copy—PHO—7/5/39.

Wholesale Price Index Numbers (1926=100) for Plaster, Base Coat, Per Ton, F. o. b. Destination¹

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Year ..	100.0	95.9	76.5	76.4	93.3	96.1	93.8	97.7	102.9	100.2	93.8	91.6	93.0	-----
Jan.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	90.5	91.8	93.1
Feb.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	89.7	92.6	92.8
Mar.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.6	92.6	91.1
Apr.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.4	-----
May.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
June.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
July.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
Aug.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
Sept.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
Oct.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	91.7	93.2	-----
Nov.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	92.1	93.1	-----
Dec.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	92.5	93.1	-----

¹ No monthly prices prior to 1937.

Wholesale Price Division.

hhh.

May 8, 1939.

Copy—PHO—7/5/39.

Wholesale Price Index Numbers (1926=100) for Prepared Roofing, Medium Shingles, Composite, Per Square, F. o. b. Factory

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Year ..	100.0	93.5	88.2	78.7	76.3	77.6	77.2	87.6	83.5	80.8	71.1	76.6	64.6	-----
Jan.....	98.6	97.5	85.3	71.2	74.7	77.4	73.8	86.5	94.2	84.2	69.6	73.0	68.1	64.9
Feb.....	97.8	97.5	81.7	70.5	74.7	77.6	73.8	77.0	87.3	84.1	68.6	73.5	67.5	64.9
Mar.....	97.8	95.9	80.4	71.0	74.7	77.6	73.8	78.2	79.7	83.9	67.6	75.5	63.3	64.9
Apr.....	100.1	93.6	81.3	77.2	74.7	77.6	73.8	79.3	77.0	84.0	70.1	75.7	64.0	-----
May.....	100.7	94.0	79.4	81.8	74.7	77.6	72.3	86.1	79.5	84.2	71.1	78.2	64.2	-----
June.....	100.7	94.0	93.3	81.8	74.7	77.6	67.1	90.9	80.1	84.2	71.1	79.6	64.2	-----
July.....	100.7	95.3	93.6	81.8	74.7	77.6	68.4	90.6	81.7	84.2	71.4	79.6	64.2	-----
Aug.....	100.7	95.3	93.6	81.8	74.7	77.6	72.2	89.9	84.2	78.6	72.4	79.6	64.2	-----
Sept.....	100.7	95.3	95.3	81.8	76.9	77.6	81.7	89.9	84.2	76.6	72.8	79.6	64.2	-----
Oct.....	100.7	95.3	97.6	81.8	80.2	77.6	86.6	92.8	84.2	77.1	72.8	79.6	64.2	-----
Nov.....	100.7	84.2	97.6	81.8	80.2	77.6	91.5	94.2	84.2	77.3	72.8	76.1	64.2	-----
Dec.....	100.7	84.5	78.6	81.8	80.2	77.6	91.5	94.2	84.2	71.2	72.8	68.7	64.2	-----

Wholesale Price Division.

hhh.

May 8, 1939.

Copy—PHO—7/5/39.

Index Numbers (1926=100) for Yellow Southern Pine Boards, #2 Common, 1" x 8", Short Leaf, Standard Lengths Per 1000 Board Feet, F. o. b. Shipping Point, Carlots or Mixed Cars, West Side

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Year.....	100.0	93.1	99.9	105.1	76.9	62.4	53.6	72.6	88.5	79.3	84.7	96.2	80.7	-----
Jan.....	100.4	97.7	88.7	108.3	87.7	66.3	61.0	51.2	93.4	80.7	79.7	100.9	75.6	98.4
Feb.....	102.6	95.1	92.2	105.3	84.5	65.0	59.9	50.2	92.7	77.9	80.4	113.2	76.7	98.2
Mar.....	101.4	99.6	94.8	108.7	85.5	66.1	58.1	51.1	93.2	75.9	82.7	117.4	76.8	97.8
Apr.....	101.0	90.6	95.8	110.0	84.6	65.4	56.0	52.4	92.7	74.1	86.1	114.7	76.4	96.4
May.....	99.8	98.8	97.7	107.3	80.1	63.9	53.1	55.4	92.4	77.0	87.5	106.4	74.6	-----
June.....	99.4	94.4	98.7	107.0	77.1	61.4	50.9	70.5	92.6	82.1	86.1	97.7	72.1	-----
July.....	98.3	93.2	100.2	104.8	77.0	61.1	48.8	82.3	86.3	84.2	84.0	89.1	74.1	-----
Aug.....	98.1	92.8	102.4	110.3	73.4	61.1	47.1	87.1	83.8	83.3	83.4	88.4	79.7	-----
Sept.....	100.8	91.4	104.0	105.1	70.6	60.1	49.6	91.5	83.7	81.7	83.8	87.9	81.7	-----
Oct.....	104.4	88.6	106.4	98.8	67.1	56.7	52.5	94.7	83.7	80.4	85.3	83.4	85.2	-----
Nov.....	98.0	89.0	107.0	94.4	68.2	60.7	53.2	91.9	84.1	77.0	85.4	79.9	95.4	-----
Dec.....	95.1	88.2	110.5	84.6	67.1	61.4	53.0	93.2	83.5	77.4	90.6	75.5	98.5	-----

May 8, 1939.

Wholesale Price Division.

mrm.

Copy—eee—7/5/39.

Wholesale Price Index Numbers (1926=100) for Common Building Brick, per 1000, Plant

	1926	1927	1928	1929	1930	1931 ¹	1932	1933	1934	1935	1936	1937	1938	1939
Year.....	100.0	100.8	98.6	97.9	93.8	89.1	80.6	79.4	90.5	88.7	88.5	90.9	90.4	-----
Jan.....	100.3	101.3	100.0	98.0	97.4	92.3	83.4	77.0	85.6	91.0	87.5	89.6	91.1	93.2
Feb.....	100.4	101.5	99.2	98.1	97.0	91.8	83.4	76.5	87.2	89.9	87.5	90.0	91.1	93.0
Mar.....	100.4	101.3	99.2	98.1	97.3	91.2	82.7	76.4	89.7	89.9	88.1	89.8	90.8	92.9
Apr.....	100.0	101.1	99.2	98.0	96.9	90.4	82.6	76.7	90.2	89.6	88.1	90.7	90.9	92.9
May.....	100.0	101.0	98.8	98.2	96.4	89.5	81.4	77.2	91.2	89.6	88.5	91.2	90.5	92.7
June.....	99.8	100.8	98.7	98.5	92.8	89.2	80.4	77.8	91.3	89.2	88.8	91.3	89.9	-----
July.....	99.8	100.5	98.4	97.8	92.6	88.9	80.1	79.2	92.0	88.7	88.8	91.4	90.3	-----
Aug.....	99.9	100.5	98.1	97.9	91.8	88.8	79.4	80.8	92.2	88.3	88.7	91.3	89.7	-----
Sept.....	100.1	100.4	98.1	97.5	91.2	87.4	79.5	81.9	91.9	87.4	89.1	91.1	89.7	-----
Oct.....	100.1	100.6	97.8	97.5	90.9	86.9	79.4	82.3	91.4	87.1	88.9	91.3	89.9	-----
Nov.....	99.6	100.3	97.8	97.4	90.9	86.4	78.3	82.6	91.4 ⁴	87.4	88.8	91.3	90.8	-----
Dec.....	99.6	100.0	97.9	97.4	90.6	86.3	77.1	84.3	91.4	87.6	89.1	90.8	90.8	-----

¹ Average of 82 firms 1926 through 1930, average of 50 firms 1931 to date.

Wholesale Price Division.

fmc.

May 8, 1939.

Copy eee 7/5/39.

Wholesale Price Index Numbers (1926=100) for Structural Steel, Structural Shapes, Beams, Etc., 3 Inches and Larger per 100 #, Mill, Pittsburgh. By Months From January 1926 to April 1939, Inc.

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Year.....	100.0	94.7	95.2	98.1	87.3	83.1	80.9	83.1	90.8	92.0	95.0	113.2	111.0	-----
Jan.....	99.6	102.1	91.9	97.0	97.0	83.0	77.3	81.7	86.8	92.0	92.0	104.7	114.9	107.3
Feb.....	99.6	99.6	94.5	97.0	91.9	84.3	77.9	81.7	86.8	92.0	92.0	104.7	114.9	107.3
Mar.....	99.6	97.0	97.0	97.0	91.9	84.3	79.7	81.7	86.8	92.0	92.0	112.9	114.9	107.3
Apr.....	99.6	97.0	97.0	97.0	91.9	84.3	81.7	81.7	86.8	92.0	92.0	114.9	114.9	107.3
May.....	99.6	97.0	95.8	99.6	91.9	84.3	81.7	81.7	94.5	92.0	92.0	114.9	114.9	-----
June.....	94.5	94.5	94.5	99.6	86.8	84.3	81.7	81.7	94.5	92.0	92.5	114.9	113.0	-----
July.....	99.6	90.7	94.5	99.6	84.3	84.3	81.7	81.7	92.5	92.0	97.1	114.9	107.3	-----
Aug.....	99.6	91.9	94.5	99.6	84.3	81.7	81.7	81.7	92.0	92.0	97.1	114.9	107.3	-----
Sept.....	102.1	93.2	94.5	99.6	81.7	81.7	81.7	82.4	92.0	92.0	97.1	114.9	107.3	-----
Oct.....	102.1	91.9	94.5	97.0	81.7	81.7	81.7	86.8	92.0	92.0	97.1	114.9	107.3	-----
Nov.....	102.1	89.4	97.0	97.0	81.7	81.7	81.7	86.8	92.0	92.0	97.1	114.9	107.3	-----
Dec.....	102.1	91.9	97.0	97.0	81.7	81.7	81.7	86.8	92.0	92.0	101.7	114.9	107.3	-----

May 6, 1939.

Wholesale Price Division.

mrm.

Copy eee 7/5/39.

Wholesale Price Index Numbers (1926=100) for Red Cedar Shingles, No. 1, 16",
5X per Square, F. O. B. Mill

	1926	1927	1928	1929	1930	1931 ¹	1932	1933	1934	1935	1936	1937	1938	1939
Year ..	100.0	93.3	102.3	110.2	80.4	68.6	67.0	90.4	110.8	120.8	116.1	126.6	125.7	-----
Jan.....	119.3	92.9	89.9	107.9	92.5	76.1	64.7	65.0	113.5	104.4	117.7	125.3	113.7	128.8
Feb.....	115.3	91.0	91.4	111.6	91.0	72.0	67.2	62.4	113.5	108.8	117.7	134.5	115.7	129.9
Mar.....	109.8	90.3	92.9	119.3	90.3	72.9	66.8	65.2	113.3	107.4	118.1	134.5	118.5	129.9
Apr.....	102.1	89.9	92.9	120.4	88.1	72.4	63.9	66.1	114.4	104.3	119.6	134.5	117.1	131.3
May.....	99.1	89.9	92.9	118.6	78.9	70.2	62.6	71.6	113.0	110.9	117.4	133.6	119.2	-----
June.....	97.7	90.7	98.0	114.2	76.4	68.4	65.2	96.3	113.1	139.5	114.8	124.9	119.6	-----
July.....	96.2	90.7	107.6	113.4	76.4	62.9	63.4	108.3	111.4	142.2	113.9	124.2	124.5	-----
Aug.....	95.1	97.7	111.6	109.8	76.4	62.9	62.6	106.7	107.1	132.2	113.9	124.4	134.7	-----
Sept.....	94.5	102.4	114.2	106.8	75.6	65.2	75.9	111.1	108.8	127.0	113.9	125.3	136.7	-----
Oct.....	92.5	99.1	114.9	105.7	73.4	70.2	77.5	109.8	107.7	130.3	115.1	123.6	144.7	-----
Nov.....	89.2	94.4	112.7	98.4	73.4	67.0	71.5	111.6	107.8	119.4	115.1	120.3	134.3	-----
Dec.....	89.2	90.3	108.3	96.2	72.7	62.9	63.0	113.5	106.5	120.1	116.5	115.1	128.5	-----

¹ 5X from 1931 on.

May 8, 1939.

Wholesale Price Division.

fmc.

Copy ece 7/5/39.

Wholesale Price Index Numbers (1926=100) for Douglas Fir Boards and Shiplap,
No. 1 common, 1" x 8", S4S, R/L Dry, per M Board Feet, f. o. b. Mill

	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939
Year ..	100.0	97.7	103.2	109.4	92.3	74.8	57.2	77.0	103.8	102.5	118.7	127.1	107.6	-----
Jan.....	92.5	97.5	92.5	110.4	104.4	83.5	71.6	53.7	111.6	95.5	110.4	126.8	108.2	112.2
Feb.....	91.8	95.5	95.5	110.4	104.4	83.5	64.9	53.0	113.4	95.5	112.6	131.3	107.4	113.4
Mar.....	111.6	96.4	98.1	110.4	104.4	83.5	60.9	53.7	113.4	95.5	113.4	133.1	107.4	113.4
Apr.....	14.4	98.5	98.5	110.4	104.4	79.6	59.7	56.7	111.9	97.9	119.4	134.3	107.4	113.4
May.....	102.5	98.5	101.3	110.4	95.7	75.4	54.9	59.1	107.4	101.4	120.8	134.3	107.4	-----
June.....	101.4	98.5	104.0	110.4	92.5	68.6	53.7	74.6	107.4	101.4	122.3	134.3	107.4	-----
July.....	101.4	98.5	104.4	110.4	89.4	68.6	53.7	86.5	102.6	105.0	122.3	132.8	107.4	-----
Aug.....	101.4	98.5	104.4	110.4	86.1	68.6	53.7	86.5	95.5	110.4	120.8	130.1	107.4	-----
Sept.....	101.4	98.5	108.9	110.4	80.6	70.9	53.7	91.0	95.5	110.4	118.8	125.3	107.4	-----
Oct.....	101.4	98.5	110.4	108.1	81.7	71.6	53.7	95.5	95.5	106.8	119.4	116.4	107.4	-----
Nov.....	98.5	98.5	110.4	106.3	82.7	71.6	53.7	106.7	95.5	104.4	119.4	113.4	107.4	-----
Dec.....	98.5	95.3	110.4	104.4	80.9	71.6	53.7	110.4	95.5	106.2	123.5	112.6	109.7	-----

Wholesale Price Division.

mrn.

May 8, 1939.

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EXHIBIT No. 918

(Statistical data for this chart, which appears in text on p. 5234, are included in data for "Exhibit No. 917". See appendix, supra, p. 5559, at p. 5561.)

"EXHIBIT No. 919", introduced on p. 5245, is on file with the Committee

"EXHIBIT No. 920", introduced on p. 5294, is on file with the Committee

"EXHIBIT No. 921", introduced on p. 5296, is on file with the Committee

"EXHIBIT No. 922", introduced on p. 5317, appears in Hearings, Part X, appendix p. 4927

"EXHIBIT No. 923", appears in text on p. 5324

"EXHIBIT No. 924", appears in text on p. 5346

EXHIBIT No. 925

[Exhibit Submitted by Lawrence Westbrook]

SIGNIFICANT COMPARISONS OF COSTS AND EQUITIES

(Applying to a house financed under conventional methods generally followed by operative builders and to an identical house financed under the Park-Living Plan)

	Conventional method	Park-Living method
Purchase-price (appraised value).....	\$3, 170. 00	\$3, 170. 00
Mortgage insured by F. H. A.....	2, 853. 00	2, 260. 00
Term of mortgage.....	(20 yrs.)	(27½ yrs.)
Equity in property.....	\$317. 00	\$910. 00
	(10%)	(28.7%)
Down-payment required (and closing charges).....	\$475. 00	\$48. 00
Monthly costs ¹	\$30. 30	\$25. 00

¹ Break-down of monthly costs:

To payments on interest & principal.....	\$18. 83	\$12. 63
To insurance of mortgage by FHA.....	. 57	. 94
Total to amortize mortgage.....	19. 40	13. 57
To amortize the down-payment.....	3. 23	none
To amortize preferred stock.....	none	2. 97
Total carrying charges.....	22. 63	16. 54
Fire and hazard insurance.....	1. 67	1. 67
Water.....	1. 00	.....
Taxes.....	none	. 54
Upkeep of grounds and house.....	5. 00	5. 00
Vacancies allowance.....	none	1. 25
Total monthly payment.....	30. 30	25. 00

"EXHIBIT No. 926", appears in text facing p. 5348

"EXHIBIT No. 927", appears in text facing p. 5349

EXHIBIT No. 928

[Exhibit by Lawrence Westbrook]

Schedule of cash requirements and resources

	Total amount	Paid in stock	Net cash needs
	\$ Amount		
REQUIREMENTS			
House—Labor and Material.....	215,760.00		215,760.00
—Contingency Allowance.....	9,000.00		9,000.00
—Surety Bond Premium.....	2,400.00		2,400.00
—Interest on Advance Loans.....	6,000.00		6,000.00
—Builder's Fee.....	11,040.00	5,520.00 Pref.	5,520.00
—Taxes (Soc. Sec., Sales, Etc.).....	3,600.00		3,600.00
—Insurance (Fire, Liab., W. Comp.).....	1,200.00		1,200.00
Real Estate Taxes during construction.....	360.00		360.00
FHA Mtge. Ins. Prem.....	1,356.00		1,356.00
F. H. A. exam. Fee.....	812.40		812.40
Financing Exp.....	1,320.00		1,320.00
Title and Recording Exp.....	3,960.00		3,960.00
Legal Expense.....	3,960.00	1,800.00 Pref.	2,160.00
Organization Expense.....	2,280.00	2,280.00 Pref.	
Architect Fee.....	14,880.00	3,960.00 Pref.	10,920.00
Land—raw.....	13,200.00	13,200.00 Pref.	
Land-improvements—public.....	77,871.60	48,000.00 Com.	29,871.60
Land-improvements—private.....	6,600.00		6,600.00
Working Capital.....	4,800.00		4,800.00
Total Requirements.....	380,400.00	74,760.00	305,640.00
AVAILABLES			
Loan Proceeds.....			271,200.00
Cash (for Pref. Stock Sold).....			34,440.00
Total Cash Available.....			305,600.00

"EXHIBIT No. 929," a folio of 34 illustrations, is on file with the Committee.
Eight of these illustrations appear in text on pp. 5362-5369

"EXHIBIT No. 930," appears in text on p. 5408

"EXHIBIT No. 931," appears in text on p. 5423

"EXHIBIT No. 932," appears in text on p. 5425

EXHIBIT No. 933

[Chart based on following statistical data appears in text on p. 5440]

TABLE 1.—How incomes were divided 1935-1936¹

Income level	Among families					
	Number of Families	Aggregate Income (Add 000,000)	Percent of Families	Percent of Income	Cumulative Percent of Families	Cumulative Percent of Income
Under \$250.....	1,162,890	136	3.9	.3	3.9	.3
\$250-\$500.....	3,015,394	1,167	10.3	2.4	14.2	2.7
\$500-\$750.....	3,799,215	2,384	12.9	5.0	27.1	7.7
\$750-\$1,000.....	4,277,048	3,738	14.5	7.8	41.7	15.6
\$1,000-\$1,250.....	3,882,444	4,348	13.2	9.1	54.9	24.7
\$1,250-\$1,500.....	2,865,472	3,908	9.7	8.2	64.6	32.9
\$1,500-\$1,750.....	2,343,358	3,778	8.0	7.9	72.6	40.8
\$1,750-\$2,000.....	1,897,037	3,469	6.5	7.3	79.1	48.1
\$2,000-\$2,250.....	1,420,883	3,002	4.8	6.3	83.9	54.4
\$2,250-\$2,500.....	1,043,977	2,472	3.5	5.2	87.4	59.6
\$2,500-\$3,000.....	1,314,199	3,569	4.5	7.5	91.9	67.0
\$3,000-\$3,500.....	743,559	2,386	2.5	5.0	94.4	72.0
\$3,500-\$4,000.....	438,428	1,626	1.5	3.4	95.9	75.4
\$4,000-\$4,500.....	249,948	1,048	.9	2.2	96.8	77.6
\$4,500-\$5,000.....	152,647	719	.5	1.5	97.3	79.1
\$5,000-\$7,500.....	322,950	900	1.1	4.0	98.4	83.1
\$7,500-\$10,000.....	187,060	1,606	.6	3.4	99.0	86.5
\$10,000-\$15,000.....	131,821	1,497	.5	3.1	99.5	89.7
\$15,000-\$20,000.....	58,487	1,014	.2	2.1	99.7	91.8
\$20,000-\$25,000.....	34,208	762	.1	1.6	99.8	93.4
\$25,000-\$30,000.....	22,233	628	.08	1.3	99.88	94.7
\$30,000-\$40,000.....	15,561	560	.05	1.2	99.93	95.9
\$40,000-\$50,000.....	6,603	315	.02	.7	99.95	96.6
\$50,000-\$100,000.....	10,571	755	.04	1.6	99.99	98.2
\$100,000-\$250,000.....	3,336	440	.01	.9	99.99+	99.1
\$250,000-\$500,000.....	699	200	(²)	.4	99.99+	99.5
\$500,000-\$1,000,000.....	197	111	(²)	.2	99.99+	99.7
Over \$1,000,000.....	75	143	(²)	.3	100.0	100.0
Total.....	29,400,300	\$47,697,238,000	100.0	100.0		

Income Level	Among Single Individuals					
	Number of Single Individuals	Aggregate Income (Add 000,000)	Percent of Individuals	Percent of Income	Cumulative Percent of Individuals	Cumulative Percent of Incomes
Under \$250.....	960,644	158	9.5	1.4	9.5	1.4
\$250-\$500.....	1,571,983	601	15.6	5.2	25.2	6.6
\$500-\$750.....	1,972,745	1,232	19.6	10.6	44.8	17.2
\$750-\$1,000.....	1,599,030	1,391	15.9	12.0	60.7	29.2
\$1,000-\$1,250.....	1,108,551	1,241	11.0	10.7	71.7	39.9
\$1,250-\$1,500.....	877,956	1,201	8.7	10.4	80.5	50.3
\$1,500-\$1,750.....	546,546	883	5.4	7.6	85.9	57.9
\$1,750-\$2,000.....	398,985	745	4.0	6.4	89.9	64.3
\$2,000-\$2,250.....	283,652	601	2.8	5.2	92.7	69.5
\$2,250-\$2,500.....	210,099	497	2.1	4.3	94.8	73.8
\$2,500-\$3,000.....	161,275	436	1.6	3.8	96.4	77.6
\$3,000-\$3,500.....	108,360	349	1.1	3.0	97.5	80.6
\$3,500-\$4,000.....	63,731	237	.6	2.0	98.1	82.7
\$4,000-\$4,500.....	36,105	164	.4	1.3	98.4	84.0
\$4,500-\$5,000.....	25,491	122	.3	1.1	98.7	85.0
\$5,000-\$7,500.....	57,316	344	.6	3.0	99.3	88.0
\$7,500-\$10,000.....	28,582	242	.3	2.1	99.5	90.1
\$10,000-\$15,000.....	20,861	250	.2	2.2	99.7	92.3
\$15,000-\$20,000.....	9,436	161	.1	1.4	99.8	93.7
\$20,000-\$25,000.....	5,617	127	.06	1.1	99.9	94.8
\$25,000-\$30,000.....	3,350	93	.03	.8	99.93	95.6
\$30,000-\$40,000.....	2,398	81	.02	.7	99.95	96.3
\$40,000-\$50,000.....	1,737	76	.02	.6	99.97	96.9
\$50,000-\$100,000.....	2,470	153	.02	1.3	99.99	98.2
\$100,000-\$250,000.....	808	98	.01	.9	99.99+	99.1
\$250,000-\$500,000.....	217	64	(²)	.6	99.99+	99.7
\$500,000-\$1,000,000.....	43	24	(²)	.2	99.99+	99.9
Over \$1,000,000.....	12	15	(²)	.1	100.0	100.0
Total.....	10,058,000	\$11,579,390	100.0	100.0		

¹ Source of Data: Hildegarde Kneeland, Consumer Incomes in the United States: Their Distribution 1935-1936 (National Resources Committee, Washington, D. C., 1939), p. 18 and p. 30.² Less than .005 percent.

EXHIBIT No. 934

[Chart based on following statistical data appears in text on p. 5442]

Estimated Average Value of All Dwellings—By Size of City, of Farm Operators Dwellings on Farms, and by Geographic Divisions, 1930—Difference in Average Value by Region

	100,000 or more	25,000- 100,000	10,000- 25,000	5,000- 10,000	2,500- 5,000	Under 2,500	Farm
United States.....	6,483	5,698	5,064	4,407	3,822	2,734	1,242
New England.....	5,114	5,622	5,093	4,223	3,963	3,742	2,356
Middle Atlantic.....	8,312	7,600	6,762	6,482	5,894	4,287	2,375
East North Central.....	6,457	6,175	5,401	4,506	4,079	2,877	1,750
West North Central.....	4,502	4,214	3,895	3,608	3,159	2,419	1,677
South Atlantic.....	5,163	4,093	3,589	3,445	2,960	2,086	876
East South Central.....	3,926	3,777	2,897	2,873	2,425	1,674	675
West South Central.....	4,403	3,757	3,164	2,907	2,520	1,684	670
Mountain.....	4,170	3,920	3,771	3,122	2,727	1,859	1,102
Pacific.....	5,687	5,515	5,037	4,370	3,747	3,141	1,820

Source: Bulletin 75, National Bureau of Economic Research, entitled "Differentials in Housing Costs," by David L. Wickens, September 17, 1939, Table A₃, p. 3.

EXHIBIT No. 935

[Chart based on following statistical data appears in text on p. 5443]

Estimated Average Monthly Rent of All Dwellings—By Size of City and Geographic Division, 1930—Difference in Average Rent by Regions

	All Groups	100,000 or more	25,000- 100,000	10,000- 25,000	5,000- 10,000	2,500- 5,000	Under 2,500
United States.....	30.34	40.07	31.52	26.88	23.45	20.29	14.10
New England.....	29.03	32.95	31.46	26.49	21.31	19.10	19.01
Middle Atlantic.....	39.66	46.00	37.76	32.55	30.90	27.55	18.79
East North Central.....	35.19	42.99	35.46	28.95	23.66	22.00	15.47
West North Central.....	25.60	33.50	28.88	26.64	24.32	20.41	14.87
South Atlantic.....	19.12	32.41	22.24	18.91	18.49	16.05	10.49
East South Central.....	15.69	23.46	22.19	16.00	15.29	13.62	9.43
West South Central.....	19.64	28.18	23.62	20.92	18.28	16.13	11.62
Mountain.....	21.94	30.97	29.91	28.03	23.23	21.46	14.45
Pacific.....	31.64	37.46	32.52	30.67	26.41	23.10	18.41

Source: Bulletin 75, National Bureau of Economic Research, entitled "Differentials in Housing Costs," by David L. Wickens, September 17, 1939, Table B₁, p. 5.

EXHIBIT No. 936

Price increases in the most important individual building materials, 1929, 1936 and 1937¹

Building Material	Price index (1926=100)			Per- cent change 1929-37	Periods of price inflexibility	
	June 1929	June 1936	June 1937		Period ¹	Level
Materials above 1929 levels in price in 1937:						
Douglas fir boards, 1 inch by 8 inches.....	113.7	-----	134.3	18	Apr. 1927 to Apr. 1928.....	98.5
Douglas fir drop siding ¹	102.1	-----	105.1	3	-----	-----
Douglas fir plaster lath.....	84.1	97.0	97.0	15	Jan. 1936 to Jan. 1937.....	110.6
White pine window sash ²	100.0	93.7	128.7	29	Jan. 1926 to June 1930.....	100.0
-----	-----	-----	-----	-----	Aug. 1935 to Nov. 1936.....	93.7
Western pine window frames ⁴	98.6	84.8	103.0	5	Jan. 1926 to Mar. 1928.....	100.0
-----	-----	-----	-----	-----	Aug. 1934 to Apr. 1936.....	77.6
White pine standard doors ³	101.6	94.1	121.4	19	Jan. 1926 to Dec. 1928.....	100.0
-----	-----	-----	-----	-----	Jan. 1929 to June 1930.....	101.6
-----	-----	-----	-----	-----	Aug. 1935 to Nov. 1936.....	94.1
White pine door frames ³	98.7	83.7	106.2	8	Jan. 1926 to Mar. 1928.....	100.0
-----	-----	-----	-----	-----	Aug. 1934 to Apr. 1936.....	76.5

See footnotes at end of table.

Price increases in the most important individual building materials, 1929, 1936 and 1937—Continued

Building Material	Price index (1926=100)			Per- cent change 1929-37	Periods of price inflexibility	
	June 1929	June 1936	June 1937		Period	Level
Materials above 1929 levels in price in 1937—Continued.						
Yellow Pine Flooring ¹	82.1	80.7	96.5	18	.....	.....
Red cedar shingles ¹	114.2	114.8	124.9	9	(⁵).....	(⁵)
Prepared roofing, individual shingles ²	76.2	85.3	103.0	35	(⁵).....	(⁵)
Prepared roofing, strip shingles ³	76.2	85.3	103.6	36	(⁵).....	(⁵)
Plaster, per ton.....	62.5	125.0	125.0	100	Jan. 1926 to Nov. 1927.....	100.0
					Feb. 1931 to Dec. 1933.....	112.5
					Feb. 1934 to Dec. 1937.....	125.0
					Apr. 1935 to Dec. 1937.....	95.6
Cement.....	94.6	95.6	95.6	1		
Common building brick ³	66.8	63.2	91.3	37		
Light colored front brick ³	84.9	82.9	94.4	11	July 1929 to Jan. 1931.....	82.2
					June 1932 to June 1933.....	74.2
					May 1934 to Aug. 1935.....	89.0
Building sand ⁴	90.6	98.2	102.2	13		
Structural steel ⁵	99.6	92.4	114.9	15		
Asbestos pipe covering ¹	92.0	92.0	103.0	17	Oct. 1928 to Aug. 1930.....	92.0
					Sept. 1931 to July 1933.....	80.0
					Nov. 1935 to July 1936.....	92.0
8-penny wire nails ³	100.0	80.0	103.6	4		
Cast iron 6-inch soil pipe ²	69.3	88.0	103.2	49	July 1935 to Nov. 1936.....	88.0
Galvanized sheets ³	91.9	71.0	96.2	5	Aug. 1934 to May 1936.....	78.5
Materials which did not reach 1929 levels in price in 1937:						
Rough barn white pine No. 2 ¹	99.9	81.9	93.4	-6	Dec. 1934 to May 1935.....	79.0
Plain white oak No. 1 ³	87.9	68.2	83.0	-6	July 1932 to May 1933.....	60.6
					July 1935 to Dec. 1936.....	68.2
Insulation building board.....	82.8	75.9	75.9	-8	July 1926 to Nov. 1928.....	94.3
					Dec. 1928 to Aug. 1930.....	82.8
					Oct. 1933 to Aug. 1935 and since May 1936.....	75.9
Mason's lump lime.....	87.4	79.2	78.5	-10		
Builder's varnish.....	100.0	95.3	95.3	-5	Jan. 1926 to Jan. 1931.....	100.0
					Dec. 1933 to Dec. 1935.....	86.1
					Jan. 1936 to Dec. 1937.....	95.3
House paint, all shades.....	100.0	92.3	92.3	-8	Jan. 1926 to July 1929.....	100.0
					Dec. 1933 to Dec. 1935.....	88.0
Inside flat wall paints, all shades.....	85.0	78.0	76.5	-10	Jan. 1926 to Oct. 1927.....	100.0
					Sept. 1929 to Dec. 1930.....	90.0
					Feb. 1931 to May 1932.....	84.0
					July 1933 to Dec. 1936.....	78.0
Hollow building tile.....	97.1	89.9	89.9	-7	Jan. 1927 to Aug. 1930.....	97.1
					Apr. 1934 to June 1937.....	89.9
Linoleum ⁴	107.4	90.6	95.1	-11	Jan. 1926 to Nov. 1927.....	100.0
					Oct. 1933 to Sept. 1934.....	94.3
					Jan. 1935 to Dec. 1936.....	90.6
Window glass, American Grade A.....	107.7	76.7	69.7	-35	(⁶).....	(⁶)
Black steel pipe, ¾ inch ²	100.0	83.3	96.2	-4	Jan. 1926 to Jan. 1928.....	100.0
					May 1934 to Jan. 1936.....	92.6
Galvanized steel pipe ²	100.0	82.0	94.0	-6	Jan. 1926 to Feb. 1928.....	100.0
					May 1934 to Jan. 1936.....	91.2
Radiation by steam or water ⁴	118.1	93.1	99.8	-16	Dec. 1928 to June 1930.....	118.1
					July 1936 to Aug. 1937.....	99.8
Heating boilers ⁴	97.0	77.0	87.8	-9	Aug. 1935 to June 1936.....	77.0
					July 1936 to Aug. 1937.....	82.8
Bathtubs, enameled.....	79.0	66.7	66.7	-16	Jan. 1926 to Jan. 1927.....	100.0
					Mar. 1927 to Apr. 1928.....	85.0
					Jan. 1931 to Dec. 1931.....	74.1
					Feb. 1936 to Dec. 1937.....	66.7
Water closets.....	111.5	63.1	63.1	-43	Feb. 1936 to July 1937.....	63.1
Sinks, ordinary kitchen.....	80.3	55.7	55.7	-31	Jan. 1926 to Jan. 1927.....	100.0
					Mar. 1927 to Apr. 1928.....	85.0
					Feb. 1929 to Feb. 1930.....	80.3
					Jan. 1931 to Dec. 1931.....	77.9
					Feb. 1936 to Dec. 1937.....	55.7
Common mortise locks ³	120.3	66.2	84.2	-30		
Knobs, steel, bronze plated ³	114.3	57.1	74.3	-35	Jan. 1926 to Dec. 1927.....	100.0

¹ Data from Bureau of Labor Statistics, Division of Wholesale Prices. Percentages computed.

² Increases in price from June 1936 to June 1937 more than 10 percent but less than 20 percent.

³ Increases more than 20 percent.

⁴ Increases under 10 percent.

⁵ Staircase price movements.

⁶ Chaotic shifts in price in 1937.

Those with no superior figures did not increase in price, June 1936 to June 1937.

Note.—This table was prepared from materials collected from the Bureau of Labor Statistics for the National Resources Committee, and has not been made available previously.

EXHIBIT No. 937

Prices of 5 principal construction materials in 27 States as of June 15, 1937

	Lumber (440 feet)	Cement (6 barrels)	Crushed stone or gravel (10 yards)	Steel (280 pounds reinforcing bars)	Brick (600)	Total
Alabama.....	\$9.24	\$12.00	\$19.90	\$7.62	\$7.63	\$56.39
Arizona.....	18.11			13.02		
Arkansas.....	11.00	15.36	16.00	10.28	9.00	61.64
California.....	16.17	10.50	10.70	8.62	7.20	53.19
Colorado.....	17.09	14.64	15.00	14.73	10.50	71.96
Connecticut.....		14.58	29.70		7.20	
Delaware.....	14.30	13.08	14.50			
Florida.....	11.75	12.00	16.10	6.83	6.60	53.28
Georgia.....	11.00	12.06	23.50	8.40	6.58	61.54
Idaho.....	13.06	16.98	12.00	12.49	6.60	61.13
Illinois.....	13.55	12.48	16.00	6.92	6.00	54.95
Indiana.....	15.40	13.98	15.00	9.52	9.30	63.20
Iowa.....	21.12	14.16	20.00	8.92		
Kansas.....	18.48	13.44				
Kentucky.....	15.40	13.56	17.50	8.57	8.10	63.13
Louisiana.....	11.48	12.90	21.40	7.22	9.14	62.14
Maryland.....	10.92	13.08	14.50	10.64	9.60	58.14
Massachusetts.....	17.24	12.42	9.80	8.57	9.30	57.33
Michigan.....	14.74	10.50	18.60	9.24	9.40	62.48
Minnesota.....	14.52	15.00	14.00	8.68	10.80	63.00
Mississippi.....	12.40	15.48	15.90	8.54	6.30	58.32
Missouri.....	13.42	13.02	16.40	8.96	9.00	60.80
Montana.....						83.91
Nebraska.....	18.48	15.54		9.04	8.55	
Nevada.....	15.40	17.40	20.00			
New Hampshire.....		13.53	14.50			
New Jersey.....	16.13	11.25	13.90	7.53	6.88	55.69
New Mexico.....	13.20	19.08		8.96	6.00	
New York.....	18.73	11.58	12.50	8.86	6.90	58.57
North Carolina.....		15.21	27.04		8.70	
North Dakota.....	17.16	18.66	29.25	8.32	16.20	89.59
Ohio.....	12.76	13.32	14.00	8.40	9.55	58.03
Oklahoma.....	17.60	14.10	16.70	7.56	7.50	63.46
Oregon.....	10.68	14.10	15.70	6.83	8.40	55.71
Pennsylvania.....	15.40	13.20	16.90	8.85	9.00	63.35
South Carolina.....	10.19	12.60	30.75			
South Dakota.....		14.88				
Tennessee.....	12.32	15.18	15.37	9.34	8.25	60.46
Texas.....	16.28	12.90	12.00	8.57	6.00	55.75
Utah.....	18.80	16.80		14.00	8.10	
Virginia.....	14.70	14.46	21.60		9.00	
Washington.....	9.20	19.80	19.60	6.83	10.50	65.93
West Virginia.....		13.32	26.00		8.40	
Wisconsin.....	19.36	14.58	18.75	8.74	8.70	70.13
Wyoming.....	18.70	17.64		10.10	10.80	

Source: Works Progress Administration, Construction Statistics Section.

NOTE.—This table was prepared from materials collected from the Works Progress Administration for the National Resources Committee and has not been made available previously.

EXHIBIT No. 938

[Chart based on following statistical data appears in text on p. 5448]

Indexes of Wholesale Price of Galvanized Steel Sheets and Automobile Body Sheets, 1929-38

[1929=100.0]

STEEL SHEETS—GALVANIZED #24

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1926	116.0	114.6	114.6	114.6	111.5	108.7	106.5	106.2	108.2	108.9	108.9	108.9
1927	106.5	104.5	103.4	102.9	105.9	107.6	107.6	107.6	107.6	105.6	103.1	102.9
1928	103.4	103.4	103.4	103.1	102.0	99.2	98.3	97.6	97.8	99.2	99.2	100.3
1929	100.6	101.4	102.0	102.0	102.0	101.4	100.3	99.2	99.2	98.7	96.4	96.4
1930	94.5	93.6	93.4	92.2	91.4	90.3	88.6	86.1	85.2	83.0	82.5	82.5
1931	81.0	81.0	81.0	79.4	78.3	77.9	81.0	81.0	81.0	81.0	81.0	80.5
1932	79.4	77.9	79.4	79.7	79.7	79.7	79.7	79.0	78.3	79.7	79.7	79.7
1933	75.7	71.3	72.6	73.7	76.3	77.7	79.7	79.7	79.7	79.7	79.7	79.7
1934	79.7	79.7	79.7	82.5	90.8	90.8	87.4	86.6	86.6	86.6	86.6	86.6
1935	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6	86.6
1936	86.6	86.6	86.6	86.6	86.6	87.2	89.4	89.4	89.4	89.4	89.4	95.0
1937	95.0	95.0	104.0	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2	106.2
1938	106.2	106.2	106.2	106.2	106.2	102.0	97.8	97.8	96.4	96.4	97.8	97.8

AUTOMOBILE BODY SHEETS #20

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1926	109.4	107.1	106.9	105.7	104.2	102.7	102.0	102.5	104.5	104.5	104.5	104.5
1927	103.0	102.0	102.0	102.0	103.2	104.5	104.5	104.5	104.5	102.0	101.8	98.3
1928	98.3	101.0	102.0	99.3	98.3	98.3	98.3	98.3	98.3	98.3	99.3	100.5
1929	100.7	100.7	100.7	100.7	100.7	100.7	100.7	100.7	99.8	98.5	98.3	98.3
1930	96.1	95.8	95.6	93.4	92.5	89.7	88.5	88.5	87.0	85.5	83.3	81.2
1931	81.2	81.2	79.7	77.0	75.2	75.2	76.2	76.2	76.2	76.2	76.2	74.4
1932	72.0	70.1	70.8	71.3	71.3	70.8	70.8	70.1	67.9	66.1	63.9	63.9
1933	62.9	61.5	61.7	63.1	64.2	63.9	63.9	63.9	67.6	67.6	67.6	67.6
1934	67.6	67.6	67.6	75.0	77.4	77.4	72.5	72.5	72.5	72.5	72.5	72.5
1935	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5	72.5
1936	72.5	71.7	72.0	72.5	72.5	72.5	75.0	75.0	75.0	75.0	76.0	78.6
1937	79.9	79.9	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2	87.2
1938	87.2	85.5	84.8	84.8	84.8	83.3	78.6	78.6	78.6	78.6	78.6	78.6

Source: Bureau of Labor Statistics.

TNEC.
2/23/39.

EXHIBIT No. 939

[Chart based on following statistical data appears in text on p. 5449]

Exchange Value of Iron and Steel (Per Cent Deviation of Subgroup Index from the All Commodities Index)

Year	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Month:											
Jan.	-3.53	-1.46	-0.54	+9.34	+18.72	+28.69	+15.79	+8.76	+8.06	+6.75	+23.11
Feb.	-2.30	-.73	0.0	+11.46	+19.61	+29.26	+17.26	+8.30	+7.82	+6.60	+24.43
March	-1.78	-1.14	+1.33	+12.37	+20.76	+26.91	+17.10	+8.31	+8.42	+11.05	+24.72
April	-2.90	+1.10	+1.89	+12.43	+22.29	+25.33	+19.10	+7.37	+8.28	+13.18	+27.57
May	-4.00	+1.95	+1.46	+14.48	+24.22	+19.94	+22.39	+7.98	+9.30	+13.96	+30.35
June	-3.62	+1.32	+2.53	+15.81	+24.88	+17.23	+18.77	+9.15	+8.96	+14.33	+28.86
July	-4.42	-1.24	+4.74	+14.86	+19.69	+12.77	+15.91	+9.57	+8.82	+13.54	+23.35
Aug.	-4.61	-1.25	+4.39	+14.29	+20.71	+13.09	+13.35	+8.20	+7.72	+14.17	+24.58
Sept.	-5.48	-1.14	+3.79	+15.59	+22.05	+13.42	+11.47	+7.56	+7.97	+14.19	+24.27
Oct.	-3.21	-.63	+4.94	+16.22	+24.84	+15.73	+12.68	+7.95	+8.96	+16.74	+24.87
Nov.	-1.77	+1.53	+6.77	+16.10	+24.26	+14.63	+12.42	+7.94	+7.89	+19.21	+25.03
Dec.	-1.46	+1.54	+8.79	+18.08	+25.88	+18.08	+11.31	+7.42	+7.96	+21.18	+25.71
Annual Average	-3.31	-.42	+3.12	+14.11	+22.53	+19.27	+15.75	+8.38	+8.42	+13.67	+25.45

Source: Based on price indices (1926 equals 100.0) published by the U. S. Bureau of Labor Statistics.

TNEC.
11-29-39.

EXHIBIT No. 940

[Chart based on following statistical data appears in text on p. 5450]

Exchange Value of Brick and Tile (Per Cent Deviation of Subgroup Index from the All Commodities Index)

Year.....	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Month:											
Jan.....	-0.93	-0.83	+0.65	+11.25	+17.83	+22.79	+19.94	+15.61	+9.68	+4.42	+13.47
Feb.....	-.52	-.52	-1.31	+12.37	+19.61	+25.59	+18.48	+13.96	+9.68	+5.45	+14.66
Mar.....	-.10	-1.46	+2.66	+11.84	+20.15	+24.42	+20.08	+13.60	+11.68	+4.56	+14.30
Apr.....	-.83	-.10	+2.22	+12.17	+19.69	+24.17	+23.74	+11.99	+11.67	+7.84	+14.87
May.....	-1.85	+ .63	+2.03	+14.34	+20.19	+19.94	+23.74	+11.35	+12.98	+8.70	+15.88
June.....	-.72	-2.21	-1.96	+16.09	+19.09	+18.46	+22.12	+11.78	+12.63	+8.94	+15.71
July.....	-1.44	-3.73	+4.98	+15.83	+17.67	+13.50	+22.06	+12.22	+10.81	+8.53	+15.10
Aug.....	-2.05	-3.12	+5.10	+14.98	+15.34	+17.27	+19.50	+10.66	+9.19	+9.14	+16.01
Sept.....	-3.14	-1.35	+3.67	+16.01	+15.47	+16.67	+17.65	+11.04	+9.07	+8.70	+16.09
Oct.....	-1.24	-1.16	+5.66	+17.50	+16.93	+18.82	+19.22	+9.69	+8.34	+9.37	+17.40
Nov.....	-.42	+ .43	+9.96	+15.95	+18.00	+19.13	+19.22	+9.55	+7.77	+11.52	+18.06
Dec.....	-.31	+ .64	+9.42	+16.26	+19.97	+21.05	+18.60	+9.89	+5.11	+12.61	+18.83
Annual Average....	-1.14	-1.05	+3.94	+14.52	+19.29	+20.18	+20.43	+11.75	+9.78	+8.34	+15.78

Source: Based on price indices (1926 equals 100.0) published by the U. S. Bureau of Labor Statistics.
TNEC.

EXHIBIT No. 941

[Chart based on following statistical data appears in text on p. 5451]

Exchange Value of Lumber (Per Cent Deviation of Subgroup Index from All Commodities Index)

Year.....	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938
Month:											
January.....	-7.16	-2.92	-0.22	-2.30	-2.53	-8.36	+21.05	+1.40	+1.99	+8.27	+14.46
February.....	-6.26	-.42	+ .11	-3.65	-5.13	-5.69	+18.61	+1.26	+2.11	+14.72	+14.04
March.....	-5.97	+ .31	+1.10	-1.71	-6.82	-3.99	+17.23	+0.63	+3.77	+16.29	+15.55
April.....	-8.59	-.31	+1.44	-1.87	-8.40	-4.14	+18.96	-0.25	+4.39	+17.05	+15.76
May.....	-9.23	-.53	+ .90	-5.19	-7.61	-4.94	+16.55	-0.50	+5.60	+17.85	+14.34
June.....	-8.07	-1.26	+1.38	-4.99	-9.86	+3.69	+15.68	+2.26	+3.66	+17.20	+13.28
July.....	-7.91	-3.32	-.95	-6.67	-11.78	+10.16	+14.04	+2.90	+3.98	+15.24	+12.69
August.....	-7.07	-2.91	-3.08	-7.21	-14.88	+14.24	+7.07	+1.86	+2.70	+13.71	+15.49
September.....	-7.20	-1.25	-3.91	-6.04	-13.78	+15.82	+6.06	+1.73	+4.04	+13.27	+15.45
October.....	-4.86	+ .53	-3.86	-7.25	-12.11	+18.26	+7.19	+1.86	+5.64	+13.93	+16.37
November.....	-3.03	-1.82	-1.35	-6.23	-11.42	+21.66	+6.14	+1.49	+5.10	+13.81	+16.39
December.....	-2.19	-1.50	-1.76	-4.08	-9.74	+24.29	+5.59	+0.74	+6.41	+14.81	+18.05
Annual Average....	-6.41	-1.57	-.69	-4.79	-9.72	+7.28	+12.82	+1.38	+4.58	+14.60	+15.01

Source: Based on price indices (1926 equals 100.0) published by the U. S. Bureau of Labor Statistics.

TNEC.
11-29-39.

EXHIBIT No. 942

Cost of labor and materials for construction of the same standard house in 26 specified cities, 1936 and 1937¹

Federal Home Loan Bank Board districts and cities	Month and year	Total	Labor	Per cent	Materials	Per cent	Ratio of percent increase in materials to percent increase in combined costs ²
District 1:							
Boston, Mass.....	June 1936.....	\$5,039.91	\$2,102.75	41.7	\$2,937.16	58.3	-----
	June 1937.....	5,665.54	2,314.99	40.9	3,350.55	59.1	-----
Increase.....		625.63	212.24	-----	413.39	-----	1.14
Providence, R. I.....	June 1936.....	4,812.38	1,713.60	35.6	3,098.78	64.4	-----
	June 1937.....	5,201.55	1,701.60	32.7	3,499.95	67.3	-----
Increase.....		389.17	-12.00	-----	401.17	-----	1.59
District 2:							
Newark, N. J.....	July 1936.....	5,055.89	2,167.10	42.9	2,888.79	57.1	-----
	July 1937.....	5,657.76	2,238.10	39.6	3,419.66	60.4	-----
Increase.....		601.87	71.0	-----	530.87	-----	1.55
Albany, N. Y.....	July 1936.....	4,677.29	1,655.51	35.4	3,021.78	64.6	-----
	July 1937.....	5,294.21	1,919.59	36.3	3,374.62	63.7	-----
Increase.....		616.92	264.08	-----	352.84	-----	.89
District 3:							
Philadelphia, Pa.....	August 1936.....	4,321.48	1,425.53	33.0	2,895.95	67.0	-----
	August 1937.....	5,209.51	1,843.53	35.4	3,365.98	64.6	-----
Increase.....		888.03	418.00	-----	470.03	-----	.79
Pittsburgh, Pa.....	August 1936.....	4,769.71	1,453.28	30.5	3,316.43	69.5	-----
	August 1937.....	5,944.45	1,986.82	33.4	3,957.63	66.6	-----
Increase.....		1,174.74	533.54	-----	641.20	-----	.78
District 4:							
Birmingham, Ala.....	June 1936.....	4,398.74	1,383.12	31.0	3,015.62	68.6	-----
	June 1937.....	5,326.62	1,789.14	33.6	3,537.48	66.4	-----
Increase.....		927.88	406.02	-----	521.86	-----	.82
Tampa, Fla.....	June 1936.....	4,709.09	1,353.95	28.8	3,355.14	71.2	-----
	June 1937.....	5,025.39	1,373.83	27.3	3,651.56	72.7	-----
Increase.....		316.30	19.88	-----	296.42	-----	1.31
Richmond, Va.....	June 1936.....	4,413.30	1,329.30	30.1	3,084.00	69.9	-----
	June 1937.....	4,608.65	1,376.70	29.9	3,231.95	70.1	-----
Increase.....		195.35	47.40	-----	147.95	-----	1.09
District 5:							
Cleveland, Ohio.....	August 1936.....	5,386.98	2,154.73	40.0	3,232.25	60.0	-----
	August 1937.....	6,105.56	2,329.48	38.2	3,776.08	61.8	-----
Increase.....		718.58	174.75	-----	543.83	-----	1.26
Nashville, Tenn.....	August 1936.....	4,472.10	1,400.42	31.3	3,071.68	68.7	-----
	August 1937.....	4,836.00	1,397.18	28.9	3,438.82	71.1	-----
Increase.....		363.90	-3.24	-----	367.14	-----	1.47

See footnotes at end of table.

Cost of labor and materials for construction of the same standard house in 26 specified cities, 1936 and 1937.—Continued

Federal Home Loan Bank Board districts and cities	Month and year	Total	Labor	Per cent	Materials	Per cent	Ratio of per cent increase in materials to per cent increase in combined costs
District 6:							
Indianapolis, Ind.....	July 1936.....	\$5,084.02	\$1,741.50	34.3	\$3,342.52	65.7	-----
	July 1937.....	5,167.21	1,644.43	31.8	3,522.78	68.2	-----
Increase.....		83.19	-97.07		180.26		(¹)
Grand Rapids, Mich.....	July 1936.....	4,543.29	1,355.48	29.8	3,187.81	70.2	-----
	July 1937.....	4,884.72	1,409.93	28.9	3,474.79	71.1	-----
Increase.....		341.43	54.45		286.98		1.20
Detroit, Mich.....	July 1936.....	4,639.38	1,562.30	33.7	3,077.08	66.3	-----
	July 1937.....	5,585.42	2,007.05	35.9	3,578.37	64.1	-----
Increase.....		946.04	444.75		501.29		.80
District 7:							
Chicago, Ill.....	June 1936.....	5,790.34	2,537.03	43.8	3,253.31	56.2	-----
	June 1937.....	6,336.27	2,678.11	42.3	3,658.16	57.7	-----
Increase.....		545.93	141.08		404.85		1.32
Milwaukee, Wis.....	June 1936.....	4,858.06	1,592.61	32.8	3,265.45	67.2	-----
	June 1937.....	5,957.19	1,710.66	28.7	4,246.53	71.3	-----
Increase.....		1,099.13	118.05		981.08		1.33
Oshkosh, Wis.....	June 1936.....	4,924.55	1,541.10	31.3	3,383.45	68.7	-----
	June 1937.....	5,057.19	1,522.73	30.1	3,534.46	69.9	-----
Increase.....		132.64	-18.37		151.01		1.67
District 8:							
St. Paul, Minn.....	July 1936.....	4,838.61	1,676.65	34.7	3,161.96	65.3	-----
	July 1937.....	6,051.58	2,152.36	35.6	3,899.22	64.4	-----
Increase.....		1,212.97	475.71		737.26		.93
St. Louis, Mo.....	July 1936.....	5,160.82	2,225.46	43.1	2,935.36	56.9	-----
	July 1937.....	5,097.36	2,136.87	37.5	3,560.49	62.5	-----
Increase.....		536.54	-88.59		625.13		(¹)
District 9:							
New Orleans, La.....	August 1936.....	4,504.27	1,252.40	27.8	3,251.87	72.2	-----
	August 1937.....	5,296.32	1,458.54	27.5	3,839.78	72.5	-----
Increase.....		794.05	206.14		587.91		1.03
Houston, Texas.....	August 1936.....	5,098.24	1,590.26	31.2	3,507.98	68.8	-----
	August 1937.....	5,328.33	1,678.31	31.5	3,650.02	68.5	-----
Increase.....		230.09	88.05		142.04		.89
District 10:							
Wichita, Kans.....	June 1936.....	4,547.75	1,098.50	24.2	3,449.25	75.8	-----
	June 1937.....	5,223.06	1,184.35	22.7	4,038.71	77.3	-----
Increase.....		675.31	85.85		589.46		1.16
Omaha, Nebr.....	June 1936.....	4,896.35	1,565.60	32.0	3,330.75	68.0	-----
	June 1937.....	4,736.18	1,168.38	24.7	3,567.80	75.3	-----
Decrease.....		-160.17	-397.22		237.05		(¹)

See footnotes at end of table.

Cost of labor and materials for construction of the same standard house in 26 specified cities, 1936 and 1937—Continued

Federal Home Loan Bank Board districts and cities	Month and year	Total	Labor	Per cent	Materials	Per cent	Ratio of per cent increase in materials to per cent increase in combined costs
District 11:							
Portland, Oreg.....	July 1936.....	4,647.72	1,648.30	35.5	2,999.42	64.5	-----
	July 1937.....	5,306.57	1,854.65	35.0	3,451.92	65.0	-----
Increase.....		658.85	206.35	-----	452.50	-----	1.06
Spokane, Wash.....	July 1936.....	5,009.36	1,634.13	32.6	3,375.23	67.4	-----
	July 1937.....	5,944.84	2,235.43	37.6	3,709.41	62.4	-----
Increase.....		935.48	601.30	-----	334.18	-----	.53
District 12:							
Los Angeles, Calif.....	August 1936....	4,644.52	1,604.44	34.5	3,040.08	65.5	-----
	August 1937....	5,260.76	1,758.51	33.4	3,502.25	66.6	-----
Increase.....		616.24	154.07	-----	462.17	-----	1.14

¹ Source: Cost data from the Federal Home Loan Bank Board. The house on which costs are reported is a detached 6-room home of 24,000 cubic feet volume. Living room, dining room, kitchen, and lavatory on first floor; 3 bedrooms and bath on second floor. Exterior is wide-board siding with brick, and stucco as features of design. Best quality materials and workmanship used throughout. The house is not completed ready for occupancy. It includes all fundamental structural elements, an attached 1-car garage, an unfinished cellar, an unfinished attic, a fireplace, essential heating, plumbing, and electric wiring equipment, and complete insulation. It does not include wallpaper nor other wall nor ceiling finish on interior plastered surfaces, lighting fixtures, refrigerators, water heaters, ranges, screens, weather stripping, nor window shades. The total figures in the above table include only labor and material. The discrepancies between the total figures in this table and those in table IX are explained by the fact that in table IX the costs shown include, in addition to material and labor costs, compensation insurance, an allowance for contractor's overhead and transportation of materials, plus 10 percent for builder's profit. Reported costs do not include the cost of land nor of surveying the land, the cost of planting the lot, nor of providing walks and driveways; they do not include architect's fee, cost of building permit, financing charges, nor sales costs. In figuring costs, current prices on the same building materials list are obtained from the same reputable contractors and operative builders.

² When ratio is more than 1.0 materials cost increased at a greater rate than combined materials and labor; when the ratio is less than 1.0 materials increased at a lesser rate, i. e., labor costs advanced at a greater rate than the combined increase.

³ Ratios not shown because the decrease in labor costs so minimized the rise in total costs as to give an exaggerated impression of the significance of changes in material costs.

NOTE.—This table was prepared from materials collected from the Federal Home Loan Bank Board for the National Resources Committee, and has not been made available previously.

EXHIBIT No. 943

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936

[In cents per hour]

[Source: U. S. Bureau of Labor Statistics]

Cities	Skilled						Semiskilled						Unskilled					
	Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:		
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial
All Cities.....	105,862	36,423	69,239	1.151	1.093	1.179	42,850	13,201	29,649	0.696	0.698	0.695	37,633	9,714	27,919	0.516	0.503	0.521
Akron, Ohio—Total.....	581	145	436	1.107	1.066	1.120	107	34	73	.587	.505	.626	163	25	138	.480	.500	.476
Union.....	520	111	409	1.122	1.097	1.129	41	5	36	.648	.530	.664	17	5	12	.594	.550	.613
Nonunion.....	61	34	27	.977	.967	.989	66	29	37	.550	.501	.588	146	20	126	.466	.488	.463
Albany, N. Y.—Total.....	582	294	288	1.024	.966	1.082	222	112	110	.522	.506	.539	137	80	57	.461	.426	.510
Union.....	413	138	275	1.097	1.116	1.087	157	50	107	.553	.580	.540	8	8	—	.500	.500	—
Nonunion.....	169	156	13	.845	.835	.971	65	62	3	.433	.446	.500	129	72	57	.438	.417	.510
Albuquerque, N. Mex.—Total.....	261	61	200	1.081	1.064	1.086	83	24	59	.588	.547	.604	205	21	184	.401	.383	.403
Union.....	221	42	179	1.094	1.101	1.092	64	8	56	.603	.560	.609	187	14	173	.403	.400	.403
Nonunion.....	40	19	21	1.008	.984	1.023	19	16	3	.537	.541	.517	18	7	11	.381	.350	.400
Altoona, Pa.—Total.....	78	21	57	.694	.680	.700	23	(1)	22	.387	.250	.393	20	(1)	18	.383	—	.383
Union.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nonunion.....	78	21	57	.694	.680	.700	23	(1)	22	.393	—	.393	20	(1)	18	.383	—	.383
Asheville, N. C.—Total.....	217	107	110	.718	.712	.723	148	52	96	.306	.319	.299	50	34	16	.302	.300	.306
Union.....	114	56	58	.813	.801	.824	9	6	3	.450	.450	.450	—	—	—	—	—	—
Nonunion.....	103	51	52	.612	.615	.610	139	46	93	.297	.302	.294	50	34	16	.302	.300	.306
Atlanta, Ga.—Total.....	1,424	552	872	.829	.755	.876	326	119	207	.423	.431	.418	423	162	261	.261	.267	.257

Union.....	523	124	399	1,066	1,052	1,070	142	60	82	492	488	495	40	40	246	400	257
Nonunion.....	901	428	473	.692	.669	.713	184	59	125	.369	.372	.368	122	261	.412	.223	
Baltimore, Md.—Total.....	2,089	618	1,471	.921	.717	1,007	662	183	479	.502	.474	.512	86	760	.412	.331	.422
Union.....	1,031	98	963	1,157	1,123	1,159	303	41	262	.576	.640	.566	177	177	.450	.450	
Nonunion.....	1,038	550	508	.692	.666	.719	359	142	217	.439	.426	.448	669	86	.403	.331	.413
Binghamton, N. Y.—Total.....	282	45	237	1,037	.920	1,060	97	12	85	.561	.479	.576	120	7	.478	.457	.480
Union.....	221	23	198	1,069	1,048	1,072	27	(1)	26	.588		.588					
Nonunion.....	61	22	39	.922	.786	.998	70	11	59	.556	.477	.570	120	7	.478	.457	.480
Birmingham, Ala.—Total.....	427	95	332	.919	.870	.932	115	28	87	.436	.362	.460	403	96	.319	.321	.319
Union.....	324	78	246	1,001	.929	1,024	20	7	13	.493	.429	.527	53	15	.384	.393	.395
Nonunion.....	103	17	86	.660	.600	.672	95	21	74	.424	.340	.443	350	81	.308	.307	.308
Bloomington, Ill.—Total.....	115	19	96	1,140	1,170	1,134	39	5	34	.703	.590	.719	118	15	.597	.623	.593
Union.....	111	15	96	1,143	1,202	1,134	39	5	34	.703	.590	.719	116	14	.600	.639	.594
Nonunion.....	4	4		1,050	1,050								(1)	(1)			
Boise, Idaho—Total.....	359	126	233	.946	.899	.972	209	66	143	.519	.493	.532	29	5	.504	.500	.505
Union.....	185	51	134	1,035	1,000	1,048	(1)	(1)									
Nonunion.....	174	75	99	.852	.830	.869	207	64	143	.520	.493	.532	29	5	.501	.500	.505
Boston, Mass.—Total.....	3,172	776	2,396	1,264	1,247	1,269	501	86	415	.818	.780	.826	1,467	508	.719	.736	.694
Union.....	3,028	723	2,305	1,274	1,275	1,274	426	77	349	.840	.801	.848	1,385	504	.704	.739	.701
Nonunion.....	144	53	91	1,035	.868	1,133	75	9	66	.695	.602	.708	82	4	.609	.400	.620
Brookton, Mass.—Total.....	344	117	227	1,005	.988	1,013	86	19	67	.668	.611	.684	82	22	.514	.518	.513
Union.....	312	95	217	1,027	1,036	1,037	53	7	46	.741	.721	.743	(1)	(1)			
Nonunion.....	32	22	10	.692	.780	.300	33	12	21	.550	.546	.552	81	21	.515	.519	.513
Buffalo, N. Y.—Total.....	2,131	977	1,154	1,188	1,241	1,144	650	188	462	.585	.599	.579	1,042	666	.586	.639	.492
Union.....	2,045	933	1,112	1,204	1,262	1,155	461	150	311	.604	.610	.601	655	619	.644	.650	.536
Nonunion.....	86	44	42	.817	.779	.888	189	38	151	.540	.558	.586	387	47	.489	.500	.488
Burlington, Vt.—Total.....	226	58	168	.862	.770	.894	240	44	196	.442	.395	.452	12	7	.379	.400	.350
Union.....	72	(1)	70	1,050		1,050											
Nonunion.....	154	56	98	.775	.762	.783	240	44	196	.442	.395	.452	12	7	.379	.400	.350

Data continued in totals.

1 Less than three employees.

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled				Semiskilled				Unskilled									
	Number of Employees			Average Wage Rate Paid to:	Number of Employees			Average Wage Rate Paid to:	Number of Employees			Average Wage Rate Paid to:						
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial						
Butte, Mont.—Total.....	229	75	154	1,473	1,488	1,466	109	12	97	0.852	0.837	0.854	26	4	22	0.720	0.720	0.720
Union.....	225	75	150	1,477	1,488	1,471	104	12	92	0.858	0.837	0.861	26	4	22	0.720	0.720	0.720
Nonunion.....	4		4	1,281		1,281	5			0.736								
Oakden, N. J.—Total.....	189	54	135	1,160	1,209	1,140	68	18	50	0.829	0.814	0.835	144	42	102	0.484	0.500	0.477
Union.....	175	50	125	1,198	1,246	1,179	62	18	44	0.829	0.814	0.836	144	42	102	0.484	0.500	0.477
Nonunion.....	14	4	10	0.679	0.750	0.650	6		6	0.525		0.525						
Casper, Wyo.—Total.....	129	71	58	1,006	0.981	1,037	77	28	49	0.577	0.585	0.573	10	5	5	0.488	0.520	0.455
Union.....	100	53	47	1,039	1,077	1,077	15	7	8	0.867	0.750	0.969						
Nonunion.....	29	18	11	0.833	0.812	0.868	62	21	41	0.507	0.530	0.495	10	5	5	0.488	0.520	0.455
Charleston, S. C.—Total.....	351	97	254	708	0.618	0.742	66	16	50	0.370	0.350	0.377	171	35	136	0.250	0.219	0.258
Union.....	25	3	22	0.900	1.000	0.989	15		15	0.433		0.433	5		5	0.250	0.250	0.250
Nonunion.....	326	94	232	0.686	0.606	0.719	51	16	35	0.352	0.350	0.353	166	35	131	0.250	0.219	0.258
Charleston, W. Va.—Total.....	463	157	306	1,051	1,032	1,062	92	36	56	0.487	0.486	0.488	324	75	249	0.410	0.406	0.411
Union.....	384	137	247	1,068	1,051	1,078	34	18	16	0.496	0.489	0.503						
Nonunion.....	79	20	59	0.970	0.900	0.993	58	18	40	0.482	0.483	0.481	324	75	249	0.410	0.406	0.411
Chattanooga, Tenn.—Total.....	291	48	243	0.932	0.757	0.967	123	18	105	0.461	0.403	0.471	269	23	246	0.302	0.300	0.302
Union.....	139	9	130	1,030	1,069	1,028	45	5	40	0.503	0.490	0.505	45		45	0.311		0.311
Nonunion.....	152	39	113	0.842	0.885	0.896	78	13	65	0.437	0.369	0.450	224	23	201	0.300	0.300	0.300
Chicago, Ill.—Total.....	4,780	991	3,789	1,459	1,491	1,450	2,297	468	1,829	0.979	0.944	0.988	1,577	268	1,309	0.925	0.949	0.920
Union.....	4,431	983	3,448	1,491	1,497	1,489	2,266	461	1,805	0.983	0.948	0.992	1,542	267	1,275	0.932	0.950	0.928
Nonunion.....	349	8	341	1,054	0.788	1,061	31	7	24	0.711	0.707	0.713	35	(1)	34	0.607		0.607

Cincinnati, Ohio—Total.....	2,341	926	1,415	1,253	1,280	1,235	482	214	268	.727	.742	.716	2,050	1,451	569	.604	.605	.600
Union.....	2,276	906	1,370	1,255	1,286	1,235	406	157	249	.729	.744	.719	1,254	832	422	.603	.605	.600
Nonunion.....	65	20	45	1,198	.965	1,243	76	57	19	.719	.736	.668	796	619	177	.604	.605	.600
Cleveland, Ohio—Total.....	3,624	1,974	1,650	1,320	1,308	1,334	2,008	884	1,124	.826	.830	.823	362	207	155	.737	.675	.819
Union.....	3,516	1,867	1,649	1,325	1,336	1,334	1,986	870	1,116	.835	.835	.824	269	114	155	.816	.811	.819
Nonunion.....	108	107	1	.810	.811	.700	22	14	8	.573	.550	.619	93	93	---	.507	---	---
Columbus, Ohio—Total.....	768	311	457	.996	.917	1,051	218	92	126	.618	.566	.656	226	60	176	.444	.419	.452
Union.....	475	150	325	1,124	1,116	1,127	104	27	77	.717	.681	.730	31	(1)	29	.548	---	.548
Nonunion.....	293	161	132	.790	.730	.862	114	65	49	.527	.518	.940	205	58	147	.428	.416	.433
Dallas, Tex.—Total.....	1,321	322	999	.993	.887	1,028	468	85	383	.433	.417	.461	1,086	142	944	.379	.351	.383
Union.....	766	82	684	1,086	1,081	1,087	29	3	26	.646	.617	.649	---	---	---	---	---	---
Nonunion.....	555	240	315	.865	.820	.899	439	82	357	.440	.410	.447	1,086	142	944	.379	.351	.383
Decatur, Ill.—Total.....	337	43	294	1,027	.788	1,062	39	11	28	.615	.555	.639	256	10	246	.505	.450	.507
Union.....	295	13	282	1,080	1,092	1,080	29	3	26	.634	.533	.646	237	---	237	.508	---	.508
Nonunion.....	42	30	12	.655	.657	.650	10	8	(1)	.563	.563	---	19	10	9	.466	.450	.483
Denver, Colo.—Total.....	1,037	425	612	1,103	.941	1,215	309	141	168	.660	.622	.692	401	82	319	.523	.423	.549
Union.....	761	163	593	1,227	1,233	1,226	200	68	132	.754	.776	.742	327	23	304	.551	.524	.553
Nonunion.....	276	262	14	.759	.759	.750	109	73	36	.489	.479	.510	74	59	15	.401	.353	.473
Des Moines, Iowa—Total.....	487	60	427	1,150	1,098	1,158	314	30	284	.568	.593	.565	104	3	101	.538	.433	.542
Union.....	385	42	343	1,251	1,183	1,259	137	12	125	.696	.668	.697	52	---	52	.675	---	.675
Nonunion.....	102	18	84	.772	.897	.745	177	18	159	.469	.529	.462	52	3	49	.402	.433	.400
Detroit, Mich.—Total.....	4,482	594	3,988	1,059	.951	1,075	1,056	89	967	.616	.622	.616	2,161	166	1,995	.495	.500	.495
Union.....	2,854	200	2,654	1,172	1,144	1,174	422	25	397	.675	.730	.672	983	109	874	.503	.500	.503
Nonunion.....	1,728	394	1,334	.874	.853	.880	634	64	570	.577	.580	.577	1,178	57	1,121	.488	.499	.488
Duluth, Minn.—Total.....	294	189	105	.907	.887	.943	100	52	48	.542	.565	.518	109	84	25	.468	.462	.490
Union.....	104	57	47	.947	.941	.954	5	(1)	3	.500	.500	.500	(1)	---	(1)	.468	---	.490
Nonunion.....	190	132	58	.885	.864	.934	95	50	45	.543	.566	.519	108	84	24	.462	---	.490
Eau Claire, Wis.—Total.....	245	74	171	.760	.736	.757	306	36	270	.446	.442	.446	22	---	22	.400	---	.400
Union.....	39	12	27	.881	.813	.911	17	---	17	.400	.442	.400	---	---	---	---	---	---
Nonunion.....	206	62	144	.726	.722	.728	289	36	253	.448	.442	.449	22	---	22	.400	---	.400

1 Less than three employees. Data continued in totals.

Average Wage Rate Paid to Union and Nonunion, Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled						Semiskilled						Unskilled					
	Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:		
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial
Elizabeth, N. J.—Total.....	341	36	305	1.236	0.927	1.272	147	(1)	145	0.808	-----	0.812	72	17	55	0.674	0.500	0.727
Union.....	298	3	295	1.288	1.543	1.285	143	-----	143	.818	-----	.818	50	-----	50	.750	-----	.750
Nonunion.....	43	33	10	.872	.870	.875	4	(1)	(1)	.450	-----	-----	22	17	5	.500	.500	.500
El Paso, Tex.—Total.....	247	68	179	.981	.846	1.032	90	40	50	.418	0.361	.464	187	30	127	.313	.265	.324
Union.....	178	26	152	1.098	1.154	1.089	21	(1)	19	.534	-----	.534	31	-----	31	.400	-----	.400
Nonunion.....	69	42	27	.677	.655	.711	69	38	31	.383	.353	.421	126	30	96	.282	.265	.300
Erie, Pa.—Total.....	364	101	263	.973	.868	1.013	159	27	132	.523	.504	.527	100	11	89	.415	.409	.416
Union.....	247	30	217	1.044	.963	1.055	39	8	31	.578	.606	.571	-----	-----	-----	-----	-----	-----
Nonunion.....	117	71	46	.823	.828	.815	120	19	101	.505	.461	.513	100	11	89	.415	.409	.416
Eugene, Oreg.—Total.....	228	87	141	.951	.823	1.030	185	46	139	.540	.482	.559	15	6	9	.464	.500	.440
Union.....	113	6	107	1.082	.990	1.088	77	(1)	76	.621	-----	.621	-----	-----	-----	-----	-----	-----
Nonunion.....	115	81	34	.822	.810	.849	108	45	63	.484	.482	.485	15	6	9	.464	.500	.440
Evansville, Ind.—Total.....	261	91	170	1.042	1.040	1.044	86	39	47	.476	.467	.484	200	39	161	.424	.418	.425
Union.....	240	79	161	1.067	1.069	1.067	12	8	4	.570	.538	.663	(1)	-----	(1)	-----	-----	-----
Nonunion.....	21	12	9	.757	.850	.633	74	31	43	.459	.448	.467	199	39	160	.424	.418	.426
Fargo, N. Dak.—Total.....	88	44	44	.821	.748	.894	26	13	13	.468	.454	.483	40	15	25	.417	.438	.404
Union.....	28	17	11	.763	.766	.759	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Nonunion.....	60	27	33	.848	.736	.939	24	11	13	.464	.441	.483	40	15	25	.417	.438	.404
Flint, Mich.—Total.....	637	111	526	1.056	.851	1.099	66	12	54	.595	.550	.606	350	25	325	.478	.478	.478
Union.....	296	16	280	1.294	1.063	1.308	10	-----	10	1.000	-----	1.000	-----	-----	-----	-----	-----	-----
Nonunion.....	341	95	246	.848	.816	.861	56	12	44	.523	.550	.516	350	25	325	.478	.478	.478

Fort Smith, Ark.—Total.....	112	26	86	.947	.856	.974	40	9	31	.424	.378	.437	125	7	118	.300	.321	.299
Union.....	86	12	74	.988	.958	.993	7	(1)	5	.430	---	.480	101	3	98	.303	.367	.301
Nonunion.....	26	14	12	.812	.768	.863	33	7	26	.424	.371	.438	24	4	20	.289	.288	.286
Fresno, Calif.—Total.....	466	117	349	1.046	.862	1.107	53	7	46	.793	.750	.799	390	50	340	.581	.531	.589
Union.....	379	46	333	1.102	.995	1.117	38	5	33	.857	.750	.873	346	26	320	.584	.561	.586
Nonunion.....	87	71	16	.800	.776	.906	15	(1)	13	.612	---	.612	44	24	20	.558	.498	.631
Gary, Ind.—Total.....	423	127	296	1.314	1.305	1.318	39	12	27	.968	.898	.969	147	20	127	.811	.840	.806
Union.....	410	117	293	1.315	1.304	1.319	38	11	27	.973	.912	.999	43	18	125	.815	.867	.807
Nonunion.....	13	10	3	1.298	1.313	1.250	(1)	(1)	---	---	---	---	4	(1)	(1)	.075	---	---
Grand Rapids, Mich.—Total.....	380	82	298	.797	.652	.837	169	12	157	.434	.475	.431	97	(1)	95	.431	---	.431
Union.....	142	18	124	1.066	.928	1.086	---	---	---	.475	.431	---	97	(1)	95	.431	---	.431
Nonunion.....	238	64	174	.636	.574	.659	169	12	157	.434	---	---	---	---	---	---	---	---
Green Bay, Wis.—Total.....	265	150	115	.898	.876	.927	179	82	97	.560	.513	.599	25	17	8	.486	.497	.463
Union.....	255	146	109	.905	.880	.939	169	81	88	.570	.513	.622	23	15	8	.489	.503	.463
Nonunion.....	10	4	6	.717	.725	.712	10	(1)	9	.383	---	.383	(1)	(1)	---	---	---	---
Greensboro, N. C.—Total.....	207	60	147	.737	.788	.716	100	28	72	.349	.352	.347	200	29	171	.272	.283	.268
Union.....	18	8	10	1.108	1.100	1.115	14	6	8	.450	.450	.450	---	---	---	---	---	---
Nonunion.....	189	52	137	.702	.739	.687	86	22	64	.332	.325	.334	200	29	171	.272	.293	.268
Hartford, Conn.—Total.....	914	316	598	.929	.884	.952	424	113	311	.552	.521	.563	410	70	340	.481	.478	.482
Union.....	334	82	252	1.070	1.090	1.063	73	23	50	.632	.577	.657	14	---	14	.500	---	.500
Nonunion.....	580	234	346	.848	.812	.872	351	90	261	.535	.507	.545	396	70	326	.480	.478	.481
Houston, Tex.—Total.....	1,082	449	633	.989	.784	1.134	297	25	272	.483	.392	.492	471	62	409	.383	.338	.390
Union.....	768	140	628	1.099	.939	1.135	85	6	79	.607	.438	.620	---	---	---	---	---	---
Nonunion.....	314	309	5	.719	.714	1.025	212	19	193	.434	.378	.439	471	62	409	.383	.338	.390
Indianapolis, Ind.—Total.....	1,393	630	763	1.124	1.028	1.203	630	311	319	.679	.665	.692	514	112	402	.437	.445	.435
Union.....	1,082	369	713	1.256	1.302	1.231	394	145	249	.749	.744	.752	86	---	86	.498	---	.488
Nonunion.....	311	261	50	.664	.640	.791	236	166	70	.562	.596	.481	428	112	316	.427	.445	.421
Jackson, Miss.—Total.....	186	92	94	.879	.824	.933	19	11	8	.434	.400	.481	182	59	123	.296	.282	.302
Union.....	83	43	40	.973	.908	1.044	---	---	(1)	---	---	---	---	---	---	---	---	---
Nonunion.....	103	49	54	.803	.751	.850	17	10	7	.438	.400	.493	182	59	123	.296	.282	.302

1 Less than three employees. Data continued in totals.

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled						Semiskilled						Unskilled					
	Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:		
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial
Kansas City, Mo.—Total.....	803	39	764	1,161	0.925	1.173	791	17	774	0.665	0.481	0.669	111	(1)	109	0.510	—	0.505
Union.....	715	21	694	1,204	1.138	1.206	587	6	551	.740	.792	.739	36	(1)	34	.678	—	.678
Nonunion.....	88	18	70	.811	.677	.845	234	11	223	.487	.311	.496	75	—	75	.427	—	.427
Knoxville, Tenn.—Total.....	321	25	296	.880	.617	.903	91	8	83	.428	.363	.434	178	13	165	.337	0.315	.339
Union.....	189	—	189	.910	—	.910	8	—	8	.550	—	.550	—	—	—	—	—	—
Nonunion.....	132	25	107	.838	.617	.890	83	8	75	.416	.363	.422	178	13	165	.337	0.315	.339
Laansing, Mich.—Total.....	355	104	251	.955	.799	1.020	59	15	44	.499	.500	.499	171	9	162	.433	.478	.431
Union.....	144	15	129	1.150	1.183	1.146	—	—	—	—	—	—	—	—	—	—	—	—
Nonunion.....	211	89	122	.822	.734	.887	58	15	(1)	.501	.500	.502	171	9	162	.433	.478	.431
Lincoln, Neb.—Total.....	232	58	174	.861	.824	.873	196	30	166	.447	.443	.448	7	3	4	.421	.450	.400
Union.....	70	23	47	1.005	.978	1.018	—	—	—	—	—	—	—	—	—	—	—	—
Nonunion.....	162	35	127	.799	.723	.820	196	30	166	.447	.443	.448	7	3	4	.421	.450	.400
Little Rock, Ark.—Total.....	313	92	221	.862	.727	.918	82	16	66	.423	.422	.424	315	31	284	.326	.282	.331
Union.....	177	20	157	.935	.908	.928	41	(1)	39	.440	.418	.440	216	—	216	.355	—	.365
Nonunion.....	136	72	64	.766	.652	.895	41	14	27	.407	.418	.401	99	31	68	.264	.282	.256
Los Angeles, Calif.—Total.....	5,295	1,399	3,896	1.011	.876	1.059	2,464	543	1,921	.617	.580	.627	1,731	163	1,568	.599	.492	.610
Union.....	3,065	416	2,649	1.091	1.027	1.101	1,325	128	1,197	.683	.748	.676	1,019	4	1,015	.629	.581	.629
Nonunion.....	2,230	983	1,247	.901	.813	.971	1,139	415	724	.539	.528	.546	712	159	553	.555	.490	.573
Louisville, Ky.—Total.....	785	202	583	1.024	.924	1.059	399	96	303	.498	.428	.521	461	88	373	.365	.400	.367
Union.....	715	157	558	1.065	1.017	1.079	141	12	129	.597	.603	.596	—	—	—	—	—	—
Nonunion.....	70	45	25	.604	.600	.612	258	84	174	.444	.403	.464	461	88	373	.365	.400	.357

Memphis, Tenn.—Total.....	760	353	407	966	940	987	355	172	183	482	514	453	562	351	211	321	347	278
Union.....	549	272	277	1,092	1,017	1,165	130	59	71	555	588	527	527	351	211	321	347	278
Nonunion.....	211	81	130	637	684	608	225	113	112	440	475	406	562	351	211	321	347	278
Miami, Fla.—Total.....	1,782	1,288	494	1,153	1,149	1,163	236	195	41	451	437	521	880	528	352	366	354	385
Union.....	1,575	1,149	426	1,182	1,178	1,190	104	76	28	536	523	572	880	528	352	366	354	385
Nonunion.....	207	139	68	935	968	992	132	119	13	385	382	409	880	528	352	366	354	385
Milwaukee, Wis.—Total.....	1,584	1,031	553	1,135	1,120	1,164	666	407	259	763	767	757	320	320	320	738	738	738
Union.....	1,572	1,024	548	1,134	1,118	1,163	498	244	254	737	717	757	320	320	320	738	738	738
Nonunion.....	12	7	5	1,321	1,379	1,240	168	163	5	840	842	760	320	320	320	738	738	738
Minneapolis, Minn.—Total.....	1,242	338	904	1,114	1,071	1,130	650	192	467	702	688	708	541	158	383	698	719	689
Union.....	995	219	776	1,152	1,138	1,156	490	113	377	741	739	741	452	131	321	731	748	724
Nonunion.....	247	119	128	960	947	971	169	79	90	590	615	568	89	27	62	527	578	505
Montgomery, Ala.—Total.....	199	77	122	838	777	876	80	44	36	315	286	350	177	23	154	278	273	278
Union.....	49	16	33	943	878	974	21	7	14	345	364	336	22	22	300	300	300	300
Nonunion.....	150	61	89	804	751	840	59	37	22	304	271	359	155	23	132	274	273	275
Nashua, N. H.—Total.....	177	81	96	893	717	1,041	91	40	351	552	525	574	14	(1)	13	450	450	450
Union.....	98	18	80	1,024	819	1,070	7	(1)	5	610	610	570	14	(1)	13	450	450	450
Nonunion.....	79	63	16	730	687	888	84	38	46	543	510	570	14	(1)	13	450	450	450
Nashville, Tenn.—Total.....	1,194	237	957	919	862	933	165	42	123	463	458	465	956	250	706	372	374	371
Union.....	1,086	196	890	952	906	961	106	25	81	493	480	498	16	16	16	400	400	400
Nonunion.....	1,108	41	67	583	640	558	59	17	42	409	426	402	940	250	690	372	374	371
New Orleans, La.—Total.....	699	385	314	719	643	813	166	63	103	430	402	447	340	107	233	326	305	336
Union.....	92	23	69	970	963	972	22	6	16	539	500	553	340	107	233	326	305	336
Nonunion.....	607	362	245	581	623	768	144	57	87	413	392	427	340	107	233	326	305	336
New York City, N. Y.—Total.....	15,160	7,921	7,239	1,418	1,356	1,485	9,468	4,295	5,173	899	884	912	727	363	364	548	530	566
Union.....	13,337	6,375	6,962	1,478	1,462	1,492	8,365	3,381	4,984	932	953	919	326	123	203	576	557	587
Nonunion.....	1,823	1,546	277	920	894	992	1,103	914	189	646	628	736	401	240	161	526	516	540
Norfolk, Va.—Total.....	428	232	196	859	830	894	109	52	57	403	406	401	229	106	123	345	338	351
Union.....	278	121	157	953	958	948	33	15	18	427	450	408	229	106	123	345	338	351
Nonunion.....	150	111	39	686	690	675	76	37	39	393	388	397	229	106	123	345	338	351

Less than three employees. Data continued in totals.

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled				Semiskilled				Unskilled			
	Number of Employees				Number of Employees				Number of Employees			
	Total	Resi- den- tial	Non- Resi- den- tial	Average Wage Rate Paid to:	Total	Resi- den- tial	Non- Resi- den- tial	Average Wage Rate Paid to:	Total	Resi- den- tial	Non- Resi- den- tial	Average Wage Rate Paid to:
Oklahoma City, Okla.—Total.....	581	157	424	0.995	0.915	1.025	415	85	330	0.434	0.446	0.430
Union.....	440	41	399	1.041	1.061	1.039	182	9	173	.445	.511	.441
Nonunion.....	141	116	25	.852	.863	.799	233	76	157	.425	.439	.418
Omaha, Nebr.—Total.....	554	117	437	.943	.908	.952	490	108	382	.478	.519	.466
Union.....	316	43	273	1.013	1.040	1.008	66	5	61	.501	.520	.490
Nonunion.....	238	74	164	.850	.831	.859	424	103	321	.474	.519	.460
Peoria, Ill.—Total.....	314	91	223	1.253	1.215	1.269	52	19	33	.712	.642	.752
Union.....	307	84	223	1.270	1.275	1.269	44	17	27	.750	.659	.807
Nonunion.....	7	7		.490	.490		8	(1)	6	.500	.500	.500
Philadelphia, Pa.—Total.....	2,473	461	2,012	1.099	.977	1.127	932	238	694	.563	.525	.576
Union.....	2,076	302	1,774	1.151	1.056	1.167	673	125	548	.671	.585	.604
Nonunion.....	397	159	238	.828	.827	.839	259	113	146	.465	.459	.469
Phoenix, Ariz.—Total.....	100	60	40	.982	.893	1.116	26	18	8	.549	.542	.565
Union.....	63	37	26	1.117	1.034	1.236	10	10		.626	.626	
Nonunion.....	37	23	14	.753	.667	.893	16	8	8	.501	.437	.565
Pittsburgh, Pa.—Total.....	2,798	446	2,352	1.243	1.014	1.287	900	108	792	.708	.579	.726
Union.....	2,127	164	1,963	1.350	1.303	1.354	641	28	613	.792	.792	.792
Nonunion.....	671	282	389	.906	.845	.950	259	80	179	.501	.504	.499
Pittsfield, Mass.—Total.....	215	92	123	.934	.923	.943	91	36	55	.577	.550	.595
Union.....	181	74	107	.946	.941	.950	40	12	28	.680	.633	.700
Nonunion.....	34	18	16	.874	.850	.900	51	24	27	.496	.508	.485

Portland, Maine—Total.....	478	161	317	.835	.729	.889	246	37	209	.563	.574	.561	31	10	21	.374	.369	.376
Union.....	208	46	162	.917	.902	.921	57	13	44	.674	.650	.681	—	—	—	—	—	—
Nonunion.....	270	115	155	.772	.660	.856	189	24	165	.530	.533	.529	31	10	21	.374	.369	.376
Portland, Oreg.—Total.....	1,021	210	811	1.082	1.058	1.088	517	100	417	.741	.708	.748	30	9	21	.562	.544	.569
Union.....	947	182	765	1.089	1.068	1.094	441	71	370	.764	.750	.766	3	(1)	(1)	.667	—	—
Nonunion.....	74	28	46	.987	.993	.984	76	29	47	.607	.606	.608	27	—	20	.550	.486	.573
Providence, R. I.—Total.....	1,296	236	1,060	1.073	.808	1.131	466	54	412	.621	.534	.632	572	23	549	.497	.474	.498
Union.....	947	74	873	1.150	1.057	1.157	322	7	315	.647	.593	.648	320	—	320	.507	—	.507
Nonunion.....	349	162	187	.864	.695	1.010	144	47	97	.564	.526	.582	252	23	229	.485	.474	.486
Reading, Pa.—Total.....	176	25	151	.940	.622	.993	41	(1)	40	.762	.500	.769	93	—	93	.448	—	.448
Union.....	96	(1)	95	1.084	1.087	.835	35	—	35	.804	—	.804	33	—	33	.497	—	.497
Nonunion.....	80	24	56	.768	.615	.834	6	(1)	5	.520	—	.520	60	—	60	.422	—	.422
Reno, Nev.—Total.....	336	187	149	1.296	1.281	1.314	108	53	55	.738	.722	.753	25	10	15	.625	.625	.625
Union.....	316	171	145	1.324	1.323	1.325	72	39	33	.795	.757	.839	23	10	13	.625	.625	.625
Nonunion.....	20	16	4	.853	.831	.938	36	14	22	.625	.625	.625	(1)	—	(1)	—	—	—
Richmond, Va.—Total.....	1,203	275	928	.859	.935	.837	432	152	280	.451	.407	.475	498	33	465	.399	.319	.405
Union.....	205	103	102	1.124	1.153	1.095	—	—	—	—	—	—	—	—	—	—	—	—
Nonunion.....	998	172	826	.805	.804	.805	432	152	280	.451	.407	.475	498	33	465	.399	.319	.405
Rochester, N. Y.—Total.....	1,124	310	814	1.154	1.148	1.156	493	163	330	.582	.621	.563	425	125	300	.550	.550	.550
Union.....	1,104	299	805	1.158	1.158	1.158	328	129	199	.597	.640	.569	212	6	206	.550	.550	.550
Nonunion.....	20	11	9	.913	.873	.961	165	34	131	.553	.549	.555	213	119	94	.550	.550	.550
Rockford, Ill.—Total.....	159	76	83	.928	.858	.992	37	21	16	.574	.538	.622	103	23	80	.543	.543	.543
Union.....	80	35	54	1.064	1.031	1.086	7	(1)	6	.800	—	.800	—	—	—	—	—	—
Nonunion.....	70	41	29	.756	.711	.819	30	20	10	.535	.545	.515	103	23	80	.543	.543	.543
Sacramento, Calif.—Total.....	718	181	537	1.153	1.215	1.131	218	17	201	.819	.906	.812	268	35	233	.656	.688	.652
Union.....	660	178	482	1.188	1.219	1.176	188	15	173	.849	.927	.842	230	33	197	.677	.692	.674
Nonunion.....	58	3	55	.730	1.000	.736	30	(1)	28	.625	—	.625	38	(1)	36	.528	—	.528
St. Louis, Mo.—Total.....	2,310	374	1,936	1.311	1.134	1.345	1,332	168	1,164	.762	.676	.774	260	17	243	.723	.526	.737
Union.....	2,136	273	1,863	1.354	1.253	1.369	1,157	99	1,058	.809	.813	.808	211	3	208	.787	.847	.786
Nonunion.....	174	101	73	.778	.810	.733	175	69	106	.452	.479	.434	49	14	35	.448	.444	.444

Data continued in totals.

*Less than three employees.

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled				Semiskilled				Unskilled									
	Number of Employees			Average Wage Rate Paid to:	Number of Employees			Average Wage Rate Paid to:	Number of Employees			Average Wage Rate Paid to:						
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial						
St. Petersburg, Fla.—Total.....	278	143	135	0.827	0.841	0.812	34	19	15	0.371	0.366	0.377	85	25	60	0.301	0.300	0.302
Union.....	112	62	50	.908	.930	.881	15	9	6	.397	.372	.433	—	—	—	—	—	—
Nonunion.....	166	81	85	.772	.773	.771	19	10	9	.350	.360	.339	85	25	60	.301	.300	.302
Salt Lake City, Utah—Total.....	409	142	267	1.033	.938	1.084	201	59	142	.561	.533	.573	24	4	20	.491	.445	.500
Union.....	276	53	223	1.105	1.046	1.119	82	12	70	.614	.675	.604	17	—	17	.500	.445	.500
Nonunion.....	133	89	44	.886	.875	.908	119	47	72	.525	.496	.543	7	4	3	.469	.445	.500
San Antonio, Tex.—Total.....	722	214	508	1.008	.855	1.072	500	50	450	.459	.494	.467	327	49	278	.362	.274	.377
Union.....	509	74	435	1.114	1.176	1.104	211	23	188	.484	.443	.489	131	—	131	.405	.405	.405
Nonunion.....	213	140	73	.753	.686	.882	289	27	262	.441	.352	.451	196	49	147	.333	.274	.353
San Francisco, Calif.—Total.....	3,701	1,309	2,392	1.155	1.134	1.167	1,047	291	756	.761	.731	.773	913	158	755	.666	.645	.670
Union.....	1,203	1,203	1,962	1.172	1.141	1.191	817	243	574	.786	.752	.801	714	127	587	.668	.661	.670
Nonunion.....	3,165	1,066	430	1.058	1.060	1.057	230	48	182	.672	.628	.683	199	31	168	.657	.577	.671
Savannah, Ga.—Total.....	332	191	141	.802	.774	.840	66	33	33	.387	.365	.409	214	161	53	.256	.253	.263
Union.....	83	53	30	.946	.938	.959	13	3	10	.477	.500	.470	—	—	—	—	—	—
Nonunion.....	249	138	111	.754	.711	.808	53	30	23	.365	.352	.383	214	161	53	.256	.253	.263
Schenectady, N. Y.—Total.....	446	278	168	1.096	1.088	1.109	216	114	102	.523	.525	.521	53	50	3	.549	.552	.500
Union.....	430	269	161	1.091	1.091	1.125	191	105	86	.529	.533	.523	41	41	—	.568	.568	.568
Nonunion.....	16	9	7	1.095	1.014	1.200	25	9	16	.480	.433	.506	12	9	3	.483	.478	.500
Seattle, Wash.—Total.....	1,043	226	817	1.233	1.118	1.265	218	33	185	.761	.659	.779	344	47	297	.689	.584	.705
Union.....	975	161	814	1.257	1.207	1.266	201	18	183	.784	.808	.781	323	29	294	.703	.672	.706
Nonunion.....	68	65	3	.892	.898	.750	17	15	(1)	.480	.480	.480	21	18	3	.465	.442	.600

Shreveport, La.—Total	271	165	106	1,058	1,063	1,060	72	51	21	350	350	193	81	112	305	310	301
Union	244	141	103	1,082	1,102	1,056	3	3		600	600						
Nonunion	27	24	3	.837	.838	.833	69	48	21	.339	.334	.350	193	112	.305	.310	.301
Sioux City, Iowa	240	62	178	.982	.966	.988	156	33	123	.471	.468	.467	25	3	.462	.500	.457
Union	195	49	146	1,043	1,038	1,045	45	15	30	.541	.537	.543	12	(1)	.500	.500	.500
Nonunion	45	13	32	.719	.695	.728	111	18	93	.443	.447	.442	13	(1)	.414	.414	.414
Sioux Falls, S. Dak.—Total	173	83	90	.882	.797	.960	62	24	38	.535	.545	.529	40	7	.406	.386	.411
Union	66	29	37	1,092	.995	1,168	4	4		.663	.663						
Nonunion	107	54	53	.753	.691	.816	58	20	38	.527	.521	.529	40	7	.386	.386	.411
Syracuse, N. Y.—Total	481	158	323	1,027	.869	1,103	177	55	122	.583	.572	.588	41	22	.454	.470	.500
Union	359	51	308	1,127	1,169	1,120	139	29	110	.596	.660	.577	5		.500		.500
Nonunion	122	107	15	.731	.726	.765	38	26	12	.535	.463	.692	36	22	.462	.470	.500
Washburn, Wash.—Total	605	59	544	1,267	1,174	1,277	259	19	240	.800	.671	.810	54	11	.705	.700	.782
Union	596	53	543	1,270	1,193	1,277	252	13	239	.804	.677	.811	49	6	.784	.800	.782
Nonunion	7	6	(1)	1,000	1,000		7	6	(1)	.636	.658		5		.580	.580	
Topeka, Kans.—Total	521	225	296	.881	.739	.989	280	91	189	.437	.406	.451	165	20	.396	.367	.400
Union	301	62	239	1,059	1,044	1,063	15	5	10	.500	.480	.510			.396		.400
Nonunion	220	163	57	.638	.623	.680	265	86	179	.433	.402	.448	165	20		.367	
Trenton, N. J.—Total	146	13	133	1,152	1,110	1,156	43	4	39	.678	.625	.684	107	7	.400	.443	.461
Union	130	13	117	1,167	1,173	1,173	41	4	37	.687	.625	.694	38	3	.35	.468	.500
Nonunion	16	16	16	1,031	1,031		(1)		(1)				69	4	.65	.455	.458
Tulsa, Okla.—Total	311	162	149	.880	.892	1,075	125	76	49	.450	.428	.485	114	23	.406	.362	.418
Union	218	84	134	1,096	1,060	1,118	13	9	4	.652	.606	.766					
Nonunion	93	78	15	.709	.713	.693	112	67	45	.427	.404	.461	114	23	.406	.362	.418
Washington, D. C.—Total	4,301	1,664	2,637	1,289	.973	1,487	823	291	532	.686	.598	.735	2,395	974	1,921	.537	.440
Union	2,964	404	2,560	1,453	1,405	1,495	653	156	497	.725	.687	.737	1,929	150	1,779	.587	.590
Nonunion	1,337	1,260	77	.858	.835	1,237	170	135	35	.539	.496	.707	966	824	142	.436	.418
Waterbury, Conn.—Total	193	69	124	1,024	.888	1,099	84	18	66	.547	.514	.556	91	7	.473	.500	.470
Union	146	27	119	1,095	1,015	1,113	38	6	32	.593	.592	.584					
Nonunion	47	42	5	.803	.806	.775	46	12	34	.508	.475	.520	91	7	.473	.500	.470

Data continued in totals.

1 Less than three employees.

Average Wage Rate Paid to Union and Nonunion Skilled, Semiskilled and Unskilled Employees in the Building Trades in Selected Cities according to Type of Construction, in 1936—Continued

Cities	Skilled						Semiskilled						Unskilled					
	Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:			Number of Employees			Average Wage Rate Paid to:		
	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial	Total	Resi- den- tial	Non- Resi- den- tial
Wheeling, W. Va.—Total.....	458	112	346	1.086	1.075	1.090	86	12	74	0.520	0.483	0.526	291	57	234	0.434	0.426	0.435
Union.....	416	98	318	1.117	1.121	1.115	19	3	16	.576	.467	.597	—	—	—	—	—	—
Nonunion.....	42	14	28	.754	.788	.804	67	9	58	.504	.489	.507	291	57	234	.434	.426	.435
Wichita, Kans.—Total.....	499	273	226	.796	.769	.828	351	130	221	.430	.426	.431	34	22	12	.369	.356	.392
Union.....	246	82	164	.886	.911	.873	12	5	7	.508	.550	.457	—	—	—	—	—	—
Nonunion.....	253	191	62	.708	.708	.710	339	125	214	.427	.420	.431	34	22	12	.360	.356	.392
Wilmington, Del.—Total.....	991	390	601	1.019	.927	1.079	309	145	164	.559	.511	.601	559	146	413	.424	.408	.429
Union.....	623	117	506	1.105	1.061	1.115	168	47	121	.597	.573	.606	199	8	191	.432	.431	.432
Nonunion.....	368	273	95	.875	.870	.889	141	98	43	.514	.481	.589	360	138	222	.420	.407	.427
Worcester, Mass.—Total.....	716	136	580	1.070	.892	1.112	424	45	379	.676	.578	.688	138	10	128	.496	.420	.502
Union.....	452	45	407	1.199	1.037	1.217	273	10	263	.750	.801	.748	45	—	45	.576	—	.576
Nonunion.....	264	91	173	.859	.820	.865	151	35	116	.543	.514	.552	93	10	83	.458	.420	.463
Zanesville, Ohio—Total.....	292	19	273	.993	1.174	.981	95	11	84	.536	.536	.536	112	—	112	.452	—	.452
Union.....	101	—	101	1.088	—	1.088	6	—	6	.400	—	.400	—	—	—	—	—	—
Nonunion.....	191	19	172	.943	1.174	.918	89	11	78	.545	.536	.547	112	—	112	.452	—	.452

EXHIBIT No. 944

Housing Monograph, Page 80.

*Labor Cost Ratios and Hourly Wage Payments, Education Buildings Erected With NIRA Funds, 1933-1936*¹

State	Number of Buildings	Average Hourly Earnings	Labor Cost Ratio ²	State	Number of Buildings	Average Hourly Earnings	Labor Cost Ratio ²
Southern States:				Industrial States—Con.			
North Carolina.....	25	\$0.799	35.5	Rhode Island.....	5	\$0.887	34.0
Kentucky.....	6	.770	33.8	Maine.....	2	.874	37.5
Florida.....	1	.758	38.6	Pennsylvania.....	13	.843	34.6
Tennessee.....	5	.739	35.4	West Virginia.....	2	.792	37.6
Virginia.....	37	.737	35.3	Delaware.....	3	.758	36.9
Alabama.....	10	.712	37.7	Great Plains States:			
Oklahoma.....	30	.708	30.6	North Dakota.....	10	.845	31.8
Georgia.....	11	.698	37.6	South Dakota.....	8	.808	30.2
South Carolina.....	8	.696	36.7	New Mexico.....	4	.788	33.9
Arkansas.....	10	.694	28.8	Kansas.....	18	.781	33.1
Mississippi.....	11	.648	34.4	Nebraska.....	11	.769	32.0
Industrial States:				Arizona.....	6	.694	28.8
Illinois.....	24	1.014	34.8	Far Western States:			
New Jersey.....	11	1.013	37.8	Nevada.....	3	1.085	30.6
Connecticut.....	6	.977	37.5	Montana.....	17	1.035	33.2
Indiana.....	5	.933	38.7	Washington.....	20	.961	33.7
New Hampshire.....	4	.933	36.6	Idaho.....	4	.925	28.6
Wisconsin.....	12	.932	31.6	Wyoming.....	2	.919	37.8
Missouri.....	26	.910	37.4	Oregon.....	16	.918	35.7
Minnesota.....	14	.895	31.8	Colorado.....	3	.901	28.1
Iowa.....	19	.892	34.9	Utah.....	6	.847	26.7

¹ Information supplied by the Bureau of Labor Statistics.² Stated in percentages of total construction costs chargeable to labor at the site.

NOTE.—This table was prepared from materials collected from the Bureau of Labor Statistics for the National Resources Committee and has not been made available previously.

SUPPLEMENTAL DATA

The following data are printed herewith in response to requests made of Dr. Lubin during the hearings. See *supra*, pp. 4971, 5234 and 5235.

Percent change in wholesale prices of Building Materials, 1929-Sept. 1939

Structural Steel.....	+9.3	Paint, roof and barn.....	+3.3
Range Boilers.....	+7.7	Varnish.....	+30.5
Brick, fire clay.....	+10.5	Prussian blue.....	+7.9
Brick, front.....	+8.1	Gum, copal.....	+6.7
Brick, silica 9x4½x2½.....	+10.5	China wood oil.....	+86.0
Cement, Portland.....	+2.6	Whiting.....	+11.8
Lath, Doug. fir.....	+16.9	Sewer pipe.....	+10.3
Lath, yellow pine.....	+25.8	Plaster, base coat.....	+19.2
Cedar siding.....	+16.2	Roofing, Ind. shingles.....	+9.0
Cypress.....	+25.9	Roofing, strip shingles.....	+13.1
Douglas fir boards.....	+10.5	Sand.....	+6.7
Pine, white.....	+3.2	Window sash, pond.....	+5.0
Pine, yellow.....	+8.2	Pine, tar.....	+2.5
Pine, southern.....	+6.4	Pipe, cast iron.....	+33.6
Pine, ponderosa.....	+3.0	Zinc sheets.....	+4.9
Redwood, Calif.....	+4.4	Terneplate 20x28.....	+7.7
Shingles, cypress.....	+7.0		

Index of Union Hourly Wage Rates, — June 1, 1939

[1929=100]

All building trades.....	107.4	Roofers, composition.....	115.2
Journeymen.....	106.8	Roofers, slate and tile.....	104.4
Asbestos workers.....	110.8	Sheet-metal workers.....	110.4
Bricklayers.....	100.6	Steam and sprinkler fitters.....	112.2
Carpenters.....	107.3	Stone masons.....	102.4
Cement finishers.....	111.7	Structural iron workers.....	114.5
Electricians (inside wiremen).....	112.0	Tile layers.....	106.5
Elevator constructors.....	109.5	Helpers and laborers.....	112.6
Engineers, portable and hoisting.....	117.4	Building laborers.....	113.6
Glaziers.....	113.0	Elevator constructors' helpers.....	107.9
Lathers.....	116.4	Hod carriers (masons' tenders).....	109.4
Marble setters.....	103.5	Marble setters' helpers.....	105.9
Mosaic and terrazzo workers.....	107.5	Plasterers' laborers.....	109.0
Painters.....	105.0	Steam and sprinkler fitters' helpers.....	122.5
Plasterers.....	107.0	Tile layers' helpers.....	111.9
Plumbers and gas fitters.....	113.5		

Mr. R. R. Rogers, vice president of Prudential Insurance Company, submitted the following data in response to a committee request, supra, p. 5078. It was entered in the record during hearings, August 23, 1939.

EXHIBIT No. 953

Net Rate of Earnings by Kind of Investment and Net Rate Adjusted for Changes in Market Value for Calendar Year 1938

[Amounts shown to nearest thousand dollars]

[000 omitted]

	Government Bonds	State Bonds	County & Municipal Bonds	Total of Govt State & Municip. Bonds	Other Bonds	Total Bonds	Stocks
Monthly Average of Invested Assets	\$758,734	\$76,932	\$126,140	\$961,856	\$964,939	\$1,926,795	\$77,946
Gross Revenue Earnings	19,415	3,069	5,394	27,878	37,071	64,949	3,823
Net Revenue Investment Expense	439	45	73	557	558	1,115	45
Net Revenue Earnings	18,976	3,024	5,321	27,321	36,513	63,834	3,778
Net Rate of Earnings	2.50%	3.93%	4.22%	2.84%	3.78%	3.31%	4.85%
Profit on Sale or Maturity	19	29	75	123	2,836	2,959	—
Loss on Sale or Maturity	4	—	71	75	217	292	—
Decrease By Adjust. B. V.	—	—	—	—	31,919	31,919	146
Increase Reserve Less Misc. Gains on M. L.	—	—	—	—	—	—	—
B. V. over M. V. or Inv. V. Beg.	—	1,943	145	2,088	63,991	66,079	—611
B. V. over M. V. or Inv. V. End.	—	1,976	96	2,072	44,117	46,189	—5,277
Net Adjustment	15	—4	53	64	—9,426	—9,362	4,520
Rate of Adjustment	.00%	.01%	.04%	.01%	—.98%	—.49%	5.80%
Adjusted Income	18,991	3,020	5,374	27,385	27,087	54,472	8,298
Net Adjusted Rate	2.50%	3.94%	4.26%	2.85%	2.80%	2.82%	10.65%

	Mortgage Loans	Real Estate	Policy Loans & Prem. Liens	Cash Incl. Agents Balances	Other Ledger Assets	Total
Monthly Average of Invested Assets	\$897,171	\$244,590	\$331,726	\$131,149	\$1,971	\$3,611,348
Gross Revenue Earnings	46,180	27,112	18,732	—	—410	160,386
Net Revenue Investment Expense	4,648	24,886	2,333	—	—	32,927
Net Revenue Earnings	41,632	2,226	16,399	—	—410	127,459
Net Rate of Earnings	4.64%	.91%	4.94%	—	—	3.63%
Profit on Sale or Maturity	3	4,619	—	—	—	7,581
Loss on Sale or Maturity	213	548	—	—	—	1,053
Decrease By Adjust. B. V.	—	9,275	—	—	—	41,340
Increase Reserve Less Misc. Gains on M. L.	62	—	—	—	—	—
B. V. over M. V. or Inv. V. Beg.	—	—	—	—	—	65,468
B. V. over M. V. or Inv. V. End.	—	—	—	—	—	40,912
Net Adjustment	—272	—5,204	—	—	—	—10,318
Rate of Adjustment	— .03%	—2.13%	—	—	—	—.29%
Adjusted Income	41,360	—2,978	16,399	—	—410	117,141
Net Adjusted Rate	4.61	—1.22	4.94	—	—	3.24%

¹ Miscellaneous Interest—Disbursement—Mainly Discount on Advance Premiums & Interest on Delayed Claims.

B 7-6-39 CR.

The Prudential Insurance Company, Newark, New Jersey.

The following letters are printed herewith in connection with discussion supra, p. 5062:

MORTGAGE LOAN DEPARTMENT

R. R. ROGERS, Vice President
PAUL BESTOR, Assistant Secretary
HAROLD D. RUTAN, Supervisor
HENRY RAUSCH, Supervisor
DAVID MARSH, Supervisor
JOHN G. JEWETT, Supervisor

NORMAN R. LEMCKE, Supervisor
HOWARD G. HARRISON, Supervisor
THOMAS B. PATILLO, Assistant Supervisor
LOREN D. COLON, Manager
JOHN G. WAGNER, Assistant Manager

THE PRUDENTIAL INSURANCE COMPANY OF AMERICA,
Home Office, Newark, New Jersey, July 6, 1939.

Mr. JOSEPH J. O'CONNELL, Jr.,
*Temporary National Economic Committee,
Congress of the United States, Washington, D. C.*

DEAR MR. O'CONNELL: In further reference to the testimony submitted by Mr. R. R. Rogers and myself to your Committee on Thursday, June 29, I am submitting herewith the explanation which I believe answers the question of Mr. Isador Lubin concerning the basis of my estimate in support of my statement that a 20% reduction of the cost of labor and materials would, in the final analysis, represent a greater savings in dollars to home buyers than would a 20% reduction of the interest charge on the mortgage.

In this connection I referred to the \$4,800 house on which a breakdown of costs was submitted by Smith and Dawson of Chicago, Illinois. Using this house as an example, I assumed that it would carry a 90% FHA insured mortgage to run for a period of 240 months at 5% contract rate of interest, with a fixed monthly payment of \$6.60 per thousand which includes both interest and amortization.

This monthly payment of \$6.60 per thousand over a period of 240 months equals a total of \$1,584, which the borrower must pay to the mortgagee on account of both principal and interest on each thousand dollars of mortgage. Thus, on this basis, the borrower pays a total of \$584 by way of interest over the life of the loan on each thousand dollars of mortgage. If the interest charge were reduced 20%, this would be equivalent to \$116.80 over the life of the loan on each thousand dollars of mortgage. A 90% mortgage on \$4,800 is \$4,320, and thus a 20% reduction of the interest charge would be \$116.80 times 4.32, or \$504.58.

The breakdown of costs submitted by Smith and Dawson indicated that the total production cost of the house was \$3,750. From this total production cost I deducted the following items: Architect Fees, \$50; Workmen's Compensation, State Unemployment Tax, and Social Security Expense, \$80; Advertising Expense, \$175. These deductions leave a balance of \$3,445 which I have assumed represents the cost of labor and materials. 20% of this item equals \$689.

By comparison we see that this \$689 which in this case represents 20% of the cost of materials and labor is \$185 more than the \$504 above mentioned as the amount of savings that would be derived from a 20% reduction of the interest charge.

I sincerely trust that this explanation will clarify both your and Mr. Lubin's understanding of the statement which I made.

I am submitting a copy of this letter to Mr. Lubin for his information.

Very truly yours,

H. W. FITZGERALD,
Statistician, Mortgage Loan Department.

HWF:AP

MORTGAGE LOAN DEPARTMENT

R. R. ROGERS, Vice President
PAUL BESTOR, Assistant Secretary
HAROLD D. EUTAN, Supervisor
HENRY RAUSCH, Supervisor
DAVID MARSH, Supervisor
JOHN G. JEWETT, Supervisor

NORMAN R. LEMCKE, Supervisor
HOWARD G. HARRISON, Supervisor
THOMAS B. PATILLO, Assistant Supervisor
LOREN D. COLON, Manager
JOHN G. WAGNER, Assistant Manager

THE PRUDENTIAL INSURANCE COMPANY OF AMERICA,
Home Office, Newark, N. J., July 18, 1939.

Mr. J. J. O'CONNELL, JR.

*Temporary National Economic Committee,
Congress of the United States, Washington, D. C.*

DEAR Mr. O'CONNELL: I have your letter of July 13 and in acknowledging wish to make one brief comment with reference to the second sentence of your second paragraph which reads as follows: "It seems to me that both your calculations and the others are correct, the difference merely reflecting the fact that yours referred to the effect of a reduction in interest charges only, whereas the other calculations, which indicated a greater relative importance of financing in the cost picture, referred to principal and interest payments."

Actually, there is no difference between my calculations and the other calculations. At the present time the usual F.H.A. insured mortgage is set upon the basis of a fixed monthly payment of 5 percent interest which will amortize the mortgage principal in 20 years or 240 months. This fixed monthly payment is \$6.60 per thousand, which accumulates a total of \$584 by way of interest while amortizing the \$1,000 of mortgage.

A 20 percent reduction of the above interest rate would be from 5 percent to 4 percent; a 20-percent reduction of the above fixed monthly payment of \$6.60 would reduce the payment to \$5.28. On this basis, \$1,000 of mortgage would be fully retired in 300 months. Thus, due to the fact that the smaller fixed monthly payment requires a longer time to liquidate the mortgage principal, the borrower still has to pay a total of \$584 on account of interest, even though the interest rate has been reduced. Thus I believe that my statement was entirely to the point in accordance with my understanding of the question.

In further general reference to the discussion, it would seem to be quite clear that the law of compensation is inescapable, with the result that a reduction, in the monthly payment terms must necessarily increase the ultimate cost to the home buyer—that is, unless the institution of interest is eliminated altogether.

Very truly yours,

H. W. FITZGERALD, *Statistician.*

HWF:AP

The chart facing this page, and the following data are included in connection with the testimony of Robert L. Davison, *supra*, p. 4994.

Effect upon annual housing costs of identical reductions¹ in various components

Components Affecting Annual Housing Costs	Percent of original property cost	Percent reduction in annual charges from reduction in component of—				
		5%	10%	25%	50%	100%
Cost of construction	85	4.3	8.5	21.3	42.5	85.0
Cost of land	15	.7	1.5	3.7	7.5	15.0
Total capital cost	100	5.0	10.0	25.0	50.0	100.0
<hr/>						
	Per year					
Interest ²	5.0	1.9	3.8	9.1	17.6	31.6
Taxes ³	2.5	1.2	2.4	6.0	11.9	23.8
Depreciation ⁴ .....	.8	.4	.8	1.9	3.8	7.6
Maintenance	2.0	1.0	1.9	4.8	9.5	19.0
Insurance .....	.2	.1	.2	.5	1.0	1.9

¹ Percentage reductions shown for each component represent the net reduction in the total annual charge for housing (owner occupancy) which is effected by a reduction in the respective component of the size indicated at the top of each column, all other components remaining unchanged. For example, a 10 percent reduction in the interest rate, with no reduction in any other component, would result in a 3.8 percent reduction in the total annual charge for housing.

² Interest rate of 5 percent corresponds to the rate being charged on mortgage insured under Title II by F. H. A.

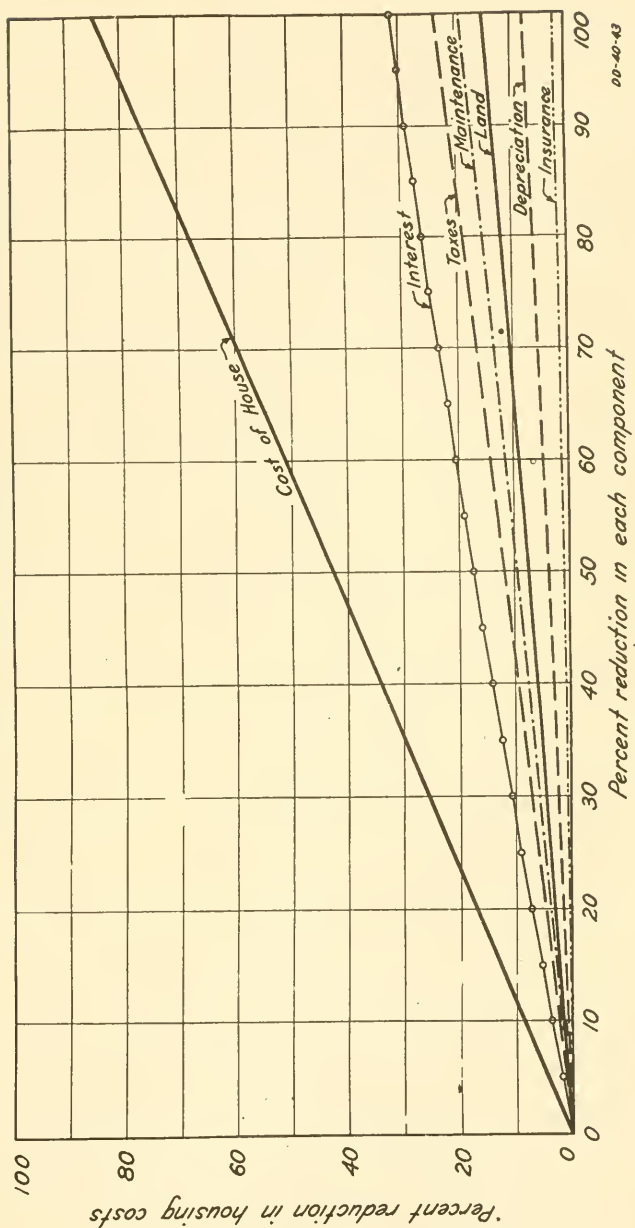
³ Taxes are assumed to be \$25 per thousand, which corresponds closely with the average for 274 cities in 1938 of \$26.90.

⁴ Depreciation .8 percent per year will amortize the investment in 40 years at 5 percent interest.

GENERAL NOTE.—Land is assumed to represent 15 percent of the total property cost, which corresponds to the average for 1938 of F. H. A. Title II properties. Life of property is assumed to be 40 years. Interest is assumed to be 5 percent on both the loan and the investment, and to be reduced similarly on both. Thus, as interest goes down, the amortization rate goes up; so that when interest is reduced to 0, the amortization rate is raised from .8 to 2.5 percent.

Total rate of 10.5 percent represents the annual charge for each of the 40 years. It is applied against the total original cost of the property, including both land and house. This rate applies only to owner-occupied properties. Tenant families must pay in addition a small charge for administration and one to provide for vacancies and bad debts.

NET EFFECT UPON HOUSING COSTS OF IDENTICAL REDUCTIONS IN EACH COMPONENT



00-40-43

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